OCEAN SUSTAINABILITY SCIENCE SYMPOSIUM
4 – 6 March 2015, ATLANTIC Hotel in Kiel / Germany

Preliminary Agenda (Stand: 1 March 2015) – updated information see ocean-sustainability.org

3 March 2015
19:30h Public Talk (in german):
Professor Reinhold Leinfelder: "Welterbe Ozeane - Problematiken und Lösungsansätze für unsere Meere". At the KulturForum Kiel, Andreas-Gayk-Str. 31; moderated by Martin Visbeck, GEOMAR Helmholtz-Centre for Ocean Research Kiel and Kiel University

4 March 2015
8:00 Registration & welcome coffee; please hand in your poster – it will be placed in the poster session by us! (Hotel lobby)
9:00 Opening (Martin Visbeck, Geomar Helmholtz-Centre for Ocean Research Kiel & Kiel University; Speaker of the Cluster of Excellence “The Future Ocean” (room: Förde 2+3)

Plenary on ocean sustainability:
9:15 From “climate” to global resource management – where is the ocean? Katherine Richardson, Department of Oceanography, University of Copenhagen/Denmark

9:30 Oceans in the Anthropocene – From the Demise of Coral Reefs to the Rise of Plastic Sediments. Reinhold Leinfelder (Director, Haus der Zukunft gGmbH i.Gr. (House of the Future), Berlin / Germany):
10:30 Coffee break
Panel discussion (Moderated by Andreas Kraemer (Ecologic Institute Berlin/Germany))
Katherine Richardson, University of Copenhagen I Reinhold Leinfelder (House of the Future)
Mark J. Spalding, Ocean Foundation/USA I Hinrich Thoelken,Federal Foreign Office/Germany
Konrad Ott (Department of Philosophy Kiel University / Germany)

11:00 The Policy Enclosure of the World Ocean. Mike Orbach (Duke Marine Lab / USA)

11:15 Ocean Sustainability - Benefits of a stand alone SDG on Ocean and Coasts, Martin Visbeck (GEOMAR Helmholtz Centre for Ocean Research Kiel & Kiel University)

11:30 Panel discussion (Moderated by Andreas Kraemer (Ecologic Institute Berlin/Germany))
Mike Orbach I Martin Visbeck I Charles Ehler (Oceans Vision Consulting/France)
Michelle Portman (Technion/Israel) I Valeria Bers (GIZ, Berlin/Germany)

12:30 Lunch break with poster session (room ‘Förde 1’)

14:00 Parallel Workshops:
1. Capacity Building in the Context of Ocean Governance (Workshop 1: Introduction to Ocean Governance - Capacity Building for the Future) (room)
2. Ocean Planning and Indicators (room:
3. Preparing for Coastal Change (room:
4. Games and Comics for Ocean Sustainability (room:

15:30 Coffee break

16:00 Parallel Workshops to be continued
17:30 end of workshops

19:00 Symposium dinner (“Fuego del Sur”; 10-15 min walking from the Atlantic Hotel)
5 March 2015

**Plenary on ocean sustainability** with more specific talks (room: ‘Förde 2+3’)

**9:00** Introduction to the session – Judith McKenzie (ETH Zurich / Switzerland)

**9:10** *The role of stakeholders in charting pathways for a sustainable ocean: example Arctic* Peter Schlosser (Earth Institute, Columbia University / USA)

**9:30** *A blue economy? Or, just the resource blues again?* Jeff Ardron (IASS – Institute for Advanced Sustainability Studies)

**9:50** *Ocean Sustainability from the deep ecology perspective.* Mengyu Li (Ocean University of China, College of Liberal Arts, Journalism and Communication, Qingdao, P.R. CHINA)

**10:10** *Orchestrating solution-oriented agendas to emerging ocean challenges in Brazil* - Leopoldo Cavalieri Gerhardinger (Campinas State University - UNICAMP, Brazil)

**10:30** Coffee break

**11:00** *Governmental, academic and industrial research – joining forces to meet future ocean challenges?* Adi Kellermann (ICES, Denmark)

**11:15** *Do we know enough to plan a 2050 Ocean?* Charles Ehler (Oceans Vision Consulting, Paris / France)

**11:30** Panel discussion on the Future of Integrated Ocean Sciences (Moderated by Katherine Richardson, University of Copenhagen / Denmark)

Adi Kellermann I Charles Ehler I Peter Liss, University of East Anglia and ICSU / UK

Valery Detemmerman, CLIVAR / China I Ed Urban, Scientific Committee on Oceanic Research SCOR, Newark / USA I Veronique Garcon (SOLAS)

**12:15** Lunch break with **Poster session (room: ‘Förde 1’)**

**14:00** **Parallel Workshops:**

1. Introduction to Ocean Governance – Capacity Building for the Future

2. Ocean planning and Indicators

3. Preparing for Coastal Change

4. Games and Comics for Ocean Sustainability

**15:30** Coffee Break

**16:00** **Parallel Workshops to be continued**

**17:30** end of workshops

**18:00** **Reports from the workshops and closing discussion (room: ‘Förde 2+3’)**

**19:00 – 21:00** **Poster Session with finger food buffet (room: ‘Förde 1’)**

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Friday, 6 March 2015

**9:00** Coffee break with poster session on “The Future Ocean”

**10:30** **Social Sciences: Kiel Marine Science**

**12:45** Lunch

**14:00** **Social Sciences: Kiel Marine Science**

**16:00** Coffee break

**16:30** **Social Sciences: Kiel Marine Science**

**18:30** closing remarks
Introduction to Ocean Governance – Capacity Building for the Future (Workshop I)

The workshop aims to discuss capacity-building in the context of ocean governance by gathering experts and practitioners working in this field. While the importance of capacity-building in strengthening ocean governance has been widely recognized, there is, to date, no overall analysis of the concept in the context of ocean governance or an overview of past and ongoing capacity-building activities in this field. This is considered to have contributed to the lack of coordination, and possibly overlaps, among existing capacity-building initiatives in some cases and the negligence of pressing needs in others.

The workshop first addresses the concept “capacity-building” in the context of ocean governance by considering what it means and what implications it has for the strengthening of ocean governance. Then, through presentations by speakers engaged in capacity-building in international organizations, academic institutions and non-governmental organizations, as well as subsequent discussions, the workshop aims to provide an overview of the past and ongoing capacity-building initiatives relating to ocean governance. At the end of the workshop, participants will have a clear understanding of the concept, an overview of capacity-building activities by various institutions, and ideas for improving capacity-building initiatives through cooperative and coordinated approaches. Organizer: Larry Hildebrand

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<thead>
<tr>
<th>INTRODUCTION TO OCEAN GOVERNANCE—CAPACITY BUILDING FOR THE FUTURE</th>
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<tbody>
<tr>
<td>A Workshop Within the Ocean Sustainability Science Symposium / 4-6 March, 2015 / Kiel, Germany</td>
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<tr>
<th>March 4</th>
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<tbody>
<tr>
<td>14:00 – 14:15</td>
<td>Welcome, Introduction to the workshop and objectives</td>
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<tr>
<td>14:15 – 14:30</td>
<td>Roundtable introductions – interests &amp; roles in capacity building in ocean governance</td>
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</table>
| 14:30 – 15:00 | • Understanding ocean governance & capacity building needs – setting the context  
• Report out from IOC Ocean Governance workshop, November 2014, Barcelona | Nele Matz-Lück, Larry Hildebrand |
| 15:00 – 15:30 | Selected capacity-building perspectives & approaches:  
• Social sciences - Duke U. Marine Lab  
• Natural marine sciences - ICES | Mike Orbach, Adi Kellermann |
| 15:30 – 16:00 | Nutrition/Networking break | |
| 16:00 – 17:00 | Capacity building needs in developing countries (South Africa, Ghana, Gambia, Pakistan, Bangladesh) | WMU student panel |
| 17:00 – 17:30 | Interactive session – responding to these needs / key points / going forward | All |
March 5

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker(s)</th>
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<tr>
<td>14:00 – 14:15</td>
<td>Re-cap from Day 1</td>
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<tr>
<td>14:15 – 14:45</td>
<td>Selected capacity-building perspectives &amp; approaches:</td>
<td>Werner Ekau, Larry Hildebrand</td>
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<tr>
<td></td>
<td>• Law, policy and management - IOI</td>
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<td></td>
<td>• Maritime affairs - WMU</td>
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<tr>
<td>14:45 – 15:30</td>
<td>Panel - The meaning of capacity building and its implications for strengthening ocean governance</td>
<td>Orbach / Kellermann / Ekau / Hildebrand</td>
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<tr>
<td>15:30 – 16:00</td>
<td>Nutrition/Networking break</td>
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<tr>
<td>16:00 – 17:00</td>
<td>Small group work – capacity building needs and approaches</td>
<td>All</td>
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<tr>
<td>17:00 – 17:30</td>
<td>Summary of key points / Next steps</td>
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<tr>
<td>18:00 – 19:00</td>
<td>Report from workshops and closing discussion</td>
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You can find background paper at:


**Registered Participants so far:**

1. Larry Hildebrand
2. Susanne Altvater, Ecologic Institute GmbH, Germany
3. Avan Antia, Excellence Cluster “The Future Ocean”, Germany
4. Paula Morandeira, Kiel University, Germany
5. Valeria Bers, GIZ
6. Rebecca Borges, Germany
7. Jonathan Durgadoo, GEOMAR Helmholtz Centre for Ocean Research
8. Werner Ekau, Germany
9. Syed Islam, WMU Malmo, Sweden
10. Uwe Jenisch, Kiel University
11. Andreas Kannen, Helmholtz-Zentrum Geesthacht, Germany
12. Adi Kellermann, ICES
13. Stefan Konradowitz, GEOMAR
14. Mike Obach, Duke Marine Lab, USA
15. Philippa Reid, WMU Malmö
16. Rebecca Sackey-Mensah, WMU Malmö, Sweden
17. Ghazi Salahuddin, WMU Malmö,
18. Siegfried Sensch, euroboXXesVC, Germany
21. Angela Stippkugel, Germany
22. Walerato Tlhapi, WMU Malmo, Sweden

13. Ousman Touray, WMU Malmo, Sweden
Ocean Planning and Indicators (Workshop II)

The Open Working Group that was tasked to develop a United Nations framework for the post-2015 development agenda proposes a stand alone Sustainable Development Goal (SDG) for the ocean: Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development. Given that the ocean and seas cover 70% of the earth’s surface area, host the largest connected ecosystem and play a central role in climate stability, oxygen generation, nutrient cycling, food production and coastal protection, the SDG for the ocean, SDG 14, is very adequate, timely and backed by a large body of natural and social, fundamental and applied science. This workshop will discuss the opportunities that this agenda holds for the ocean research community in the context of sustainable development indicators and a global future ocean planning research effort.

Organizers: Martin Visbeck and Martin Quaas

You can find background material on the [website](#).

### 4 March 2015; 14:00 – 18:00

**Sustainable Development Goals; Kate Houghton (IASS Potsdam, Germany)**

**Measurements of Ocean Sustainability Wilfried Rickels (IfW Kiel, Germany)**

**A new Chapter for the high seas? Sebastian Unger (IASS Potsdam / Germany)**

**Future Ocean Spatial Planning; Sarah Gahlen/Erik van Doorn**

**Registered Participants:**

1. Jeff Ardon, Institute for Advanced Sustainability Studies (IASS) Potsdam/ Germany
2. Vittorio Barale, European Commission, Italy
3. Leopoldo Cavalieri Gerhardinger, Coletivo Memórias do Mar; Earth System Governance project, Brazil
4. Sabine Christiansen, Germany
5. Colin Devey, GEOMAR Helmholtz Centre for Ocean Research Kiel, Germany
6. Charles Ehler, Ocean Vision Consulting, Paris, France
7. Xiaoxi Fang, GEOMAR Helmholtz Center for Ocean Research Kiel, Germany
8. Maria Adelaide Ferreira, FCSH-UNL, Portugal
9. Sarah Fiona Gahlen, Kiel University, Germany
10. Antje Gimpel, Thünen Institute of Sea Fisheries, Hamburg / Germany
11. Lucy Greenhill, Scottish Association for Marine Science, United Kingdom
12. Thomas Greiber, IASS Potsdam / Germany
13. Katherine Houghton, Institute for Advanced Sustainability Studies (IASS) Potsdam, Germany
14. Bendix Hügelmann, Kiel University, Germany
15. Johannes Karstensen, GEOMAR Helmholtz Centre for Ocean Research, Germany
16. Ulrike Kronfeld-Goharani, Kiel University, Germany
17. Carolin Löschler, GEOMAR Helmholtz Center for Ocean Research, Germany
18. Barbara Neumann, Kiel University, Germany
19. Myriam Perschke, University of Oldenburg, Germany
20. Martin Quaas, Kiel University, Germany
21. Henrike Rambo, Thünen Institute of Sea Fisheries, Hamburg, Germany
22. Sinja Rist, Germany
23. Wilfried Rickels, Kiel Institut for the World Economy, Germany
24. Ricardo Roura, Antarctic and Southern ocean Coalition, Netherlands
25. Nicole Schmidt, Leibniz Institute for Baltic Sea Research Warnemünde, Germany
26. Stefanie Schmidt, Ecologic Institute, Germany
27. Rebecca Scott, GEOMAR Helmholtz Centre for Ocean Research, Germany
28. Tharaka Sriram, Hamburg, Germany
29. Vanessa Stelzenmüller, TI Institute of Sea Fisheries, Hamburg, Germany
30. Sebastian Unger, Institute for Advanced Sustainability Studies (IASS) Potsdam/ Germany
31. Erik van Doorn, Kiel University, Germany
32. Martin Visbeck
Preparing for coastal change (Workshop III)

Rapid population growth and urbanisation, economic development and intensification of coastal hazards, due either to climate change or human actions, are expected to re-shape coastal regions in the coming years. Changes in the way we manage and live in the coastal environment are necessary in order to be able to cope with the pressures exerted by the above factors. The workshop will discuss the main physical and socio-economic processes that are currently driving coastal change and will propose new pathways that can lead to a sustainable coast. A focus of the workshop will be the question of how to deal with deep uncertainties when formulating long term policies for managing coastal regions. The workshop will involve experts from the fields of, among others, sea-level science, impact and adaptation assessment, coastal engineering, coastal ecology and integrated coastal zone management.

Organizer: Nassos Vafeidis

Registered Participants so far:
1. Nassos Vafeidis, Kiel University, Germany
3. Sönke Dangendorf, University of Siegen, Germany
4. Michelle Portman, University Technion Israel, Institute of Technology of the Faculty of Architecture
5. Christine Bertram, Kiel Institute for the World Economy, Germany
6. Annette Breckwoldt, ZMT Bremen, Germany
7. Benjamin Burkhard, CAU Kiel, Germany
8. Hans de Moel, IVM, Netherlands
9. Kornelia Dimitrova, Netherlands
10. Jörg Grabo, Kiel
11. Lena Heel, Germany
12. Nina Keul, Germany
13. Ina Krueger, Ecologic Institute, Germany
14. Jan Merkens, Kiel University, Germany
15. Luci Hidalgo Nunes, UNICAMP, Spain
16. Angela Oels, Fernuniversität Hagen, Germany
17. Petra Pissulla, Germany
18. Lena Reimann, Kiel University
19. Biniam Samuel-Fitwi, CAU Kiel, Germany
20. Sara Santamaria, Kiel University
21. Mark Schuerch, CAU Kiel, Germany
22. Rüdiger Schulz, CAU Kiel, Germany
23. Mark Spalding, Ocean Foundation
24. Horst Sterr, Kiel University
25. Molin Teegen, Germany
26. Natasa Vaidianu, University of Bukarest, Romania
27. Stefanie Wodrig, CAU Kiel, Germany
28. Claudia Wolff, Kiel University
Games and Comics for Ocean Sustainability (Workshop IV)

The perception of maritime subjects and issues are different between groups of people, and depends on the information available to either party. The communication of scientific results is thus crucial to increase literacy and allow informed decision-making. Communication could be interactive (e.g. games), or using easy to approach media, e.g. comics. In the past years, there is growing realization of the potential for games and gamelike experiments as powerful tools for education, outreach, research, and in particular for issues related to maritime management. While focusing on games this workshop will explore new ways of science communication and how to engage with stakeholders as well as the general public. We will do this by looking at worked examples of games and comics, and by having fun with all participants in a game jam! Organizer: Jörn Schmidt, Chris Vicari

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<thead>
<tr>
<th>4.3. Time</th>
<th>Name</th>
<th>Titel</th>
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<tbody>
<tr>
<td>14:00 –</td>
<td>Jörn Schmit</td>
<td>Introduction and tour around the table</td>
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<tr>
<td>14:15 –</td>
<td>Chris Vicari</td>
<td>Games in science, education and outreach</td>
</tr>
<tr>
<td>15:00 –</td>
<td>Jessica</td>
<td>PoLAR + EcoChains card game</td>
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<tr>
<td>15:30 –</td>
<td>Coffee Break</td>
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<tr>
<td>16:00 –</td>
<td>Play time!</td>
<td>EcoChains card game, Saga, ArcticAnew,....</td>
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<tr>
<th>5.3. Time</th>
<th>Name</th>
<th>Titel</th>
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<tbody>
<tr>
<td>14:00 –</td>
<td>Reinhold</td>
<td>Science and comics - a multimodal approach to knowledge transfer for complex topics</td>
</tr>
<tr>
<td>14:45 –</td>
<td>Elisabetta</td>
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<tr>
<td>15:00 –</td>
<td>Ballarini</td>
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<tr>
<td>15:00 –</td>
<td>Lisa</td>
<td></td>
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<tr>
<td>15:15 –</td>
<td>Hentschel</td>
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<td>15:15 –</td>
<td>Sergio</td>
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<tr>
<td>15:30 –</td>
<td>Vitale</td>
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<tr>
<td>15:30 –</td>
<td>Coffee Break</td>
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<tr>
<td>16:00 –</td>
<td>Game Jam</td>
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</tbody>
</table>
Registered Participants:

Jörn Schmidt, Kiel University, Germany
Chris Vicari, Columbia University, United States

1. Jens Ambsdorf
2. Elisabetta Ballarini, CAU Kiel, Germany
3. Friederike Balzereit, Excellence Cluster “The Future Ocean”, Germany
4. Wiebke Basse, Germany
5. Jessica Brunacini, Columbia University, US
6. Christiane Eschenbach, Helmholtz-Zentrum Geesthacht, Germany
7. Lisa Hentschel, University of the Westfjords, Germany
8. Julia Hoffmann, Kiel University, Germany
9. Tobias Hoss, Muthesius Kunsthochschule, Germany
10. Xander Keijser, Rijkswaterstaat
11. Reinhold Leinfelder, House of the Future Berlin, Germany
12. Mengyu Li, Ocean University of China, China
13. Ina Liebetrau, Germany
15. Denise Marx, Germany
16. Maike Nicolai, GEOMAR Helmholtz Centre for Ocean Research, Germany
17. Dennis Nissen, Naymspace, Germany
18. Filipa Saldanha, Calouste Gulbenkian Foundation, Portugal
19. Sergio Vitale, Consiglio Nazionale delle Ricerche - Istituto per l'Ambiente Marino Costiero, UOS di Mazara del Vallo, Italien
20. Rudi Voss, CAU Kiel, Germany

SPEAKERS

Katherine Richardson

Katherine Richardson got her first degree at Harvard University and her PhD at the University of Wales. Her research deals with the identification and quantification of factors influencing the flow of energy and material (especially carbon and nitrogen) in pelagic ecosystems. Specifically, she concentrates on the climatic control of marine ecological processes, including predicting the influence of climate change on aquatic productivity and quantifying the role of biological processes in ocean uptake of atmospheric CO2. In 2006-2007, she led the largest project round-the-world cruise to develop a global picture of carbon flow in surface waters of the ocean as well as CO2 exchange between the ocean and the atmosphere. Mrs. Richardson is currently Professor in Biological Oceanography at Aarhus University and the leader of the faculty of science and the Sustainability Science Center in Copenhagen.

Reinhold Leinfelder

Reinhold Leinfelder graduated in Geology and Paleontology at the Ludwig-Maximilian-University of Munich. He received his doctoral degree in Stuttgart, where he also worked as Associated Professor. His research interest cover the wide area of Geobiological and constructional subjects to integrated Research and Education as well as future vision for the Anthropocene. He is Director of the “Haus der Zukunft” (house of the future) in Berlin, which aims to connect scientists, economists and politicians to produce innovative ideas.

Mike Orbach
Mike Orbach concentrates on applications of social science to environmental policy and management, marine fisheries and integrated coastal management, and public involvement in environmental policy. He is an active waterman (fishing, surfing, sailing) with involvement in grassroots conservation movements. Currently, he is Professor of Marine Affairs and Policy and Director at Duke University and of a Coastal Environmental Management Program in North Carolina, USA. His research interests include Anthropology and ocean related subjects like marine policy. Mr. Orbach also deals with the influence of climate change in coastal regions, as well as climate adaption and the role of politics.

**Hinrich Thölken**

Hinrich Thölken has been Head of Division of Climate and Environmental Diplomacy, Sustainable Economy at the German Federal Foreign Office since 2010. In his assignment he has focussed on geopolitical and security implications of climate change and natural resource competition. As a career diplomat with the Foreign Office since 1989 he served in German missions in Namibia, the United States and France. In addition he was involved in regional Asian issues, communication and press work, as well as the German EU Presidency in 2007. Mr. Thöelken has a science background and holds a Medical Doctorate. He worked for several years as a researcher at Heidelberg University Medical School and as Head of Communication and Media Relations at the Helmholtz Association of National Research Centers.

**Mark Spalding**

Mark J. Spalding is an authority on international environmental policy and law. He is the former Director of the Environmental Law and Civil Society Program, and Editor of the Journal of Environment and Development, at the Graduate School of International Relations & Pacific Studies, University of California at San Diego. His research interests relate to marine conservation as well as trade and the environment. His current research projects include the protection of marine mammals and conservation of their habitat; reduction of ocean noise pollution; establishment of new marine protected areas in the Sea of Cortez and in the Caribbean; and interactions between climate change and oceans. Mr. Spalding has both a law degree and a masters in Pacific international affairs, he gained work experience in various countries, which helps him to fulfill his tasks in the position as the first president of the Ocean Foundation.

**Charles Ehler**

Charles Norman Ehler was a senior executive for the US National Oceanic and Atmospheric Administration (NOAA) and US Environmental Protection Agency for 32 years. From 2000-2005, he worked as the Marine Vice-Chair of IUCN’s World Commission on protected areas. In 2007 he received an award from the Intergovernmental Panel on Climate Change for his work on coastal adaptation and its contribution to the award of the Nobel Peace Prize to the IPCC. He is involved in various projects dealing with marine spatial planning, his marine planning work at UNESCO has been supported since 2006 by the Gordon and Betty Moore Foundation. Mr. Ehler is the current president of Ocean Visions Consulting. As a marine spatial planning consultant, he also works for the UNESCO’s Intergovernmental Oceanographic Commission (IOC) and other international and non-governmental organizations.

**R. Andreas Kraemer**
Currently on Sabbatical, R. Andreas Kraemer is Founder & Director Emeritus of Ecologic Institute in Berlin, Germany, since 1995, and Founding Chairman (pro bono) of in Washington DC since 2008. He has been researcher, teacher, and policy advisor on environment and resources, climate and energy, international relations and global affairs for over 30 years. He is also Visiting Assistant Professor of Political Science and Adjunct Professor of German Studies at Duke University and Manager (pro bono) of the Konrad von Moltke Fund. R. Andreas Kraemer is active as Co-Chairman of the Advisory Boards of OekoWorld, setting global investment criteria for ethical and 'green' investment funds or mutual trusts, and of Oekom Research, a rating agency specializing in corporate and governmental or 'sovereign' debtors’ credit risk, ethics and sustainability, as well as the advisory board of Oekom Verlag, a publishing house based in Munich, Germany, and dedicated to sustainable development.

Li Mengyu

Dr. Mengyu Li is a professor of Ocean University of China, and she has been a visiting scholar in the faculty of English at the University of Cambridge, in the Institute for Intercultural Communication at the University of Louisville and the Center for Faulkner Studies at Southeast Missouri State University. She has been invited to attend many international conferences in US, UK, Japan and Singapore etc and act as the section chair and discussant. She has also been selected as the paper reviewer of the International journal Intercultural Communication Studies. She is the author and coauthor of five books, and the book Communicating Interculturally she coauthors with American professor Michael H. Prosser, who is the early founder of the field, was first published in Higher Education Press in 2012 in China and later published in Dignity Press in 2014 in US. Her academic interests include comparative literature and Intercultural communication. In recent years, she shows a great interest in the study of ocean sustainability from the deep ecology perspective and has undertaken a research project and published several papers related to the area.

Leopoldo C. Gerhardinger

Leopoldo C. Gerhardinger is a Ph.D. candidate in Environment and Society at the Centre for Environmental Studies (NEPAM), University of Campinas (UNICAMP) in Brazil. He holds a B.Sc. in Oceanography (Universidade do Vale do Itajaí, Santa Catarina, Brazil - 2004) and a M.Sc. in Conservation (University College London - 2008). His general research interests range from marine ecology and ethnoecology to the theory and practice of governance. Through the Ph.D. he is investigating the role of key actors in the governability and innovation of a large Brazilian coastal-marine protected area named Baleia Franca [Southern-Right Whale] Environmental Protection Area. He is affiliated with a marine conservation NGO ECOMAR, with whom he engages various facets of coastal and marine governance in Brazil through research-action approaches in co-designing and delivering marine conservation projects of various sorts and at various levels.

Peter Schlosser
Peter Schlosser is Vinton Professor of Earth and Environmental Engineering and Professor of Earth and Environmental Sciences at Columbia University, New York. He is Deputy Director and Director of Research of the Earth Institute, Columbia University, and serves as Chair of the Earth Institute faculty. He received M.S. and PhD degrees in Physics from the University of Heidelberg in 1981 and 1985, respectively. Schlosser's research focuses on water systems, primarily in oceans and groundwater including problems caused by human impact. His scientific interests include water circulation in the ocean surface, movement into the deep ocean, and circulation patterns within the deep ocean. His groundwater flow studies address shallow and deep aquifers, especially as they relate to past continental climate and environmental risk/impact studies. Current research is also directed toward exploration of mixing and gas exchange in ocean, rivers and estuaries. Schlosser is past Chair of the SEARCH program (Study of Environmental Arctic Change), co-Chair of the Science Steering Group for ISAC (International Study of Arctic Change), member of the Board of the International Sustainable Research Society (ISDRS), and member of the Earth League. He has served on numerous national and international science steering and advisory committees and was President of the Ocean Sciences Section and Council member of the American Geophysical Union. He is a Fellow of the American Geophysical Union, the American Association for the Advancement of Science, and the Explorers Club.

Jeff Adron

Jeff Adron is a Senior Fellow at the Institute for Advanced Studies in Sustainability (IASS), Potsdam, Germany. He holds an MSc in Environment and Management, from Royal Roads University, Canada. With a focus on deep sea mining, his current research is concerning transparency of resource governance and how this affects social equity, protection of the environment, and economic success or failure. He maintains his involvement in British Columbia, Canada as President of the Board for the Pacific Marine Analysis and Research Association (PacMARA), an organization he co-founded, that provides technical training and workshops internationally on marine planning and related software. He has also been a co-founder / pioneer member of several other non-governmental organizations (NGOs), trans-disciplinary initiatives, boards and committees. He is currently active in the Global Ocean Biodiversity Initiative (GOBI) and the Deep Ocean Stewardship Initiative (DOSI). He is a frequent guest lecturer, and has consulted widely.

Konrad Ott

Konrad Ott is a philosopher focusing on discourse ethics, environmental ethics and sustainability. He also deals with ethic aspects of climate change as well as environmental politics. He is currently Professor at the university of Kiel. Mr. Ott is a member of the Advisory Council on the Environment in Germany and a member of the scientific advisory board of the ministry of the environment in Mecklenburg Vorpommern.

Judith McKenzie

Judith McKenzie studied chemistry at the University of Colorado, receiving a MS degree in 1970. Pursuing her interests in natural environmental systems, she began a second course of study in marine geology and
Adi Kellermann

Dr. Adi Kellermann - the Head of Science Programme in the ICES Secretariat. He has extensive experience with externally funded projects, including national funding (e.g., monitoring and research data bases, environmental impacts of wind farming), EC funded projects (e.g., COSA, Profet Policy, MARCOM+) and overseas funded projects (e.g., US National Science Foundation, Lighthouse Foundation/Korea), either as PI/project leader, initiator or participant. Currently he is also coordinator of the 'Towards an Integrated Science and Technology Community' - MARCOM+ Marine and Maritime Forum. His scientific work focused on biological oceanography in the Southern Ocean for eleven years, including participation in the SCAR/SCOR/IABO/ACMRR funded BIOMASS Programme and intense cooperation with Brazil, the UK, the US, Poland and Russia between 1981- 1991. He has spent twelve years as senior science manager in Germany's largest (marine) National Park. A major activity was the design, implementation and coordination of the Trilateral Monitoring and Assessment Program (TMAP) in the European Wadden Sea (1992-2004). His duties in ICES cover organizing the Annual Science Conference with around 700 participants, co-sponsorship and shadowing of ICES science symposia, coordinating about 70 ICES Expert Groups under the ICES Science Committee, and overseeing the ICES publication programme.

Rainer Zahn

The focus of Dr. Zahn’s research is the connection of ocean and climate. His research centers on the ocean currents around southern Africa, namely the water transport from the Indian Ocean to the Atlantic. This transport influences the Atlantic circulation and, notably, the Gulf Stream. Dr. Zahn’s research aims to understand ocean circulation in the southern hemisphere and its influence on climate in Europe. He collaborates with oceanographers, climate modellers and paleoclimatologists in Israel, UK, Germany, US and South Africa. With palaeo-anthropologists he explores the linking between the marine climatology of the Indian Ocean and influence on continental climate in southern Africa in the past, and how this affected the evolution of geochemistry at the Scripps Institute of Oceanography in La Jolla, CA, and subsequently earned her doctorate in July 1976 in the Institute of Geology at the ETH Zurich. Her research concentrates on the study of evidence for past climate and environmental change as recorded in chemical sediments from both lacustrine and marine systems. The study of important modern environmental systems, such as the Great Barrier Reef in Australia or hypersaline lagoons in Brazil or geochemical cycles in lakes in Switzerland, is emphasized in her research along with an evaluation of anthropogenic influences on these environments. Over the years, she has been very active in the international Ocean Drilling Program (ODP) in both a research and advisory capacity and is now involved in the management of Swiss participation in the new Integrated Ocean Drilling Program (IODP).
modern humans in South Africa about 400,000 years ago.

**Ed Urban**

Ed Urban is a native of California, moving to the eastern United States to pursue a master's degree in marine studies at the University of Delaware. After earning an M.S., he stayed at the University of Delaware to earn a Ph.D. in Marine Studies/Applied Ocean Science and a Master's of Business Administration. Dr. Urban served as a Sea Grant Fellow, Staff Officer, and later Senior Staff Officer at the U.S. National Research Council’s Ocean Studies Board from 1989 to 2000. At the National Research Council, Dr. Urban was the director of more than 20 studies, focused in the areas of fisheries science and policy, coastal science and policy, the infrastructure of ocean science in the United States, and means to improve cooperation of U.S. and foreign ocean scientists. Dr. Urban served as staff for the U.S. National Committee to SCOR from 1997 to 2000 and has served as the SCOR Executive Director since October 2000.

**Peter Liss**

Dr. Liss has been based in the School of Environmental Sciences at the UEA for more than 40 years, researching and teaching many aspects of environmental chemistry. In particular his research has focused on the biogeochemical interactions between the ocean and the atmosphere, specialising in the processes of air-sea gas exchange, the mechanisms of trace gas formation in the oceans, and their reactivity and role in the atmosphere. Dr. Liss has received the Challenger Society Medal, the Plymouth Marine Sciences Medal, and the John Jeyes Medal of the Royal Society of Chemistry. He served for 5 years on the Natural Environment Research Council, was Chair of the Scientific Committee of the International Geosphere-Biosphere Programme, and Chair of the Scientific Steering Committee for the international SOLAS Project and is currently a member of Defra's Science Advisory Council. He chairs MEDIN (Marine Environmental and Data Information Network), the MASTS (Marine Alliance for Science and Technology in Scotland) Advisory Board and the National Oceanography Centre’s Association Board and he is a member of its Science Advisory Council. Dr. Liss is currently Executive Director of the International Council for Science (ICSU).

**Valery Detemmerman**

Valery Detemmerman is currently the Executive Director of the International CLIVAR Project Office ICPO, hosted at the First Institute of Oceanography, SOA, in Qingdao. CLIVAR – Climate and Ocean, Variability, Predictability and Change, is one of four major projects of the World Climate Research Programme (WCRP), sponsored by the World Meteorological Organization (WMO), the Intergovernmental Oceanographic Commission of UNESCO (IOC), and the International Council for Science (ICSU). The ICPO facilitates cooperation and integration of the many CLIVAR-related research efforts around the globe (see [www.clivar.org](http://www.clivar.org)). ICPO staff are located in China, India, Italy and Germany.
Prior to coming to Qingdao, Valery spent 27 years as a member of the Joint Planning Staff for the WCRP in Geneva, Switzerland. Over the years, Valery was WCRP staff person responsible for liaison with the major WCRP ocean-related projects, including the World Ocean Circulation Experiment (WOCE), the Tropical Ocean-Global Atmosphere project (TOGA) and CLIVAR. Before moving to Geneva, Valery spent four years in Washington, DC, USA, as a policy analyst for the National Oceanic and Atmospheric Administration (NOAA) and programme manager in Atmospheric Sciences at the National Science Foundation (NSF). Before that, she earned a Master's degree in physical oceanography at the Rosenstiel School of Marine and Atmospheric Science (RSMAS), University of Miami, and worked for the Tritium Lab at RSMAS, carrying out tritium and carbon 14 sampling expeditions in the Arctic Ocean. Valery was responsible for compiling both the GARP Atlantic Tropical Experiment (GATE) and Mid-Ocean Dynamics Experiment (MODE) Atlases. She has a Bachelor's degree in Earth and Planetary Sciences from the Massachusetts Institute of Technology (MIT) where she worked closely with Henry Stommel and other members of the WHOI/MIT community. Valery was born and raised in a small town in New Jersey, USA. She is married and has two children.

Workshop: Ocean Governance – Capacity Building for the Future:

Larry Hildebrand

Dr. Lawrence (Larry) Hildebrand joined the faculty of the World Maritime University on April 1, 2013, as Professor and Canadian Chair in Marine Environment Protection. He comes to WMU from Halifax, where he is engaged to integrated coastal and ocean management (ICOM). These include: Senior Coastal and Ocean Specialist and program manager for the Canadian federal Department of Environment and Adjunct Professor of Marine Affairs at Dalhousie University and Visiting Professor at universities in the U.S., Iceland, Uruguay and the U.K. Dr. Hildebrand has also served as consultant and trainer to the United Nations Environment Programme, Convention on Biological Diversity. He is a Governor of the International Ocean Institute and Senior Research Fellow at I01-Canada, an Editorial Board member of the international journals Coastal Management and Ocean & Coastal Management, and Executive Board member of several coastal- and ocean-related NGOs. Dr. Hildebrand has degrees in marine biology (B.Sc. Hons) and environmental studies (MES) from Dalhousie University and a Ph.D. in coastal and ocean governance from Cardiff University in Wales.

Workshop: Preparing for Coastal Change:

Nassos Vafeidis

Nassos joined the Institute of Geography at CAU in February 2008 and is the leader of the CRSLR Junior Research Group of the Future Ocean Excellence Cluster. He has a background in Surveying Engineering and received his MEng at the National Technical University of Athens. He went on to complete an MSc in Physical Geography at the University of London (King’s College) where he specialised in Geographic Information Systems and remote sensing. After a one-year break working as a consultant in the industry, he returned to King’s College where he obtained his PhD degree in Physical Geography. He then moved to Flood Hazard Research Centre (Middlesex University) where he worked on the DINAS-Coast and Atlantis research projects. Before he joined CAU, he was a visiting researcher at the University of the Aegean (Greece) and at the University of Southampton (UK).

Nassos’ main research focus is the assessment of impacts of coastal hazards, with particular emphasis on how these impacts will be exacerbated by rising sea levels and increasing human pressure in coastal regions. His research to date includes the compilation of global spatial
Hans de Moel

Hans de Moel has been employed at the Institute for Environmental Studies since 2003 and currently works as an assistant professor in the field of flood risk management, climate change and adaptation. He aims to look in an integrated way at the natural system with its hazards, the impacts it can have on society and how this relates to the management of these hazards. Academic interests are in the fields of flood risk management, water resources, hydrological modelling, land-use change, climate change (past and future), adaptation, and uncertainty analyses. The main focus of his research has been on flood risks, particularly the development and application of models assessing the consequences (damage/risk) of flooding. He has developed flood and risk models for, amongst others, the Netherlands (local and national scale), New York City and Ho-Chi-Minh City. He also uses hydrological modelling at various scales (small catchments to global) to investigate water scarcity, impacts of climate change and land management on coral reefs and the provisioning of ecosystem services. Additionally, he has worked on ocean acidification, land-use change, and food losses.

Michelle Portmann

Michelle Portmann got her degree in Political Economy of Natural Resources (B.Sc.’85) and in Urban and Regional Planning (M.Sc. ’91). She graduated with a doctorate in Public Policy (’07) at the University of Massachusetts. She held a two year postdoctoral fellow position at the Marine Policy Center of Woods Hole Oceanographic Institution (WHOI) in Cape Cod, USA (2007-09). Currently, she works as assistant professor at the University Technion – Israel Institute of Technology at the Faculty of Architecture and Town Planning. Dr. Portman's deals with integrated coastal zone management, ecosystem services and environmental impact assessment and environmental /marine spatial planning. She was involved in several research projects, for example "Design and Management of Marine Reserve Networks" to implement appropriate tools for constructing marine reserves at the coast of Israel.

Sönke Dangendorf

Sönke Dangendorf received his PhD in coastal engineering at the University of Siegen. He was involved in several projects dealing with sea level rise and databases for coastal vulnerability analysis and the development of models for assessing the impacts of coastal hazards and accelerated sea-level rise on coastal land use. He is also involved in the development and application of the DIVA integrated assessment model.

Nassos has participated in a number of collaborative research projects and is currently leading the EU-funded COMPASS project and the Work Package on Economic Impacts of Sea-Level Rise of the CIRCE project. He has co-authored several peer-reviewed articles and scientific reports and has also contributed to the Stern Review on the Economics of Climate Change. His teaching includes modules on "Climate Change", "Environmental Monitoring and Modelling", "Applications of GIS" and "Coasts of the World".

variability on timescales from seconds to centuries and its impacts on the coastal zones including flood risk management. His research interests cover the fields of physical and coastal oceanography as well as coastal engineering especially under the consideration of climate change impacts. He has also a particular focus on the estimation of natural and anthropogenic contributions to global and regional mean sea level rise.

Workshop: Ocean Planning and Indicators

Martin Visbeck

Martin is chair in Physical Oceanography at the GEOMAR Helmholtz Centre for Ocean Research and Kiel University, Germany. Martin’s current research is concerned with ocean and climate variability and change with particular emphasis on the circulation of the Subpolar North Atlantic. Martin has served and is serving on several national and international advisory committees. Currently, he is the co-chair of the World Climate Research Project CLIVAR (Climate Variability and Predictability), which facilitates global climate research in the atmosphere and ocean. He is a member of the German National Committee for Global Change Research, the German Committee Future Earth, and is Speaker of the Kiel Cluster of Excellence 'The Future Ocean' which is advancing integrated marine sciences. In this cluster, he also co-coordinates a research group on ocean sustainability ‘our common future ocean’. Together with researchers from economy, law and philosophy, he works on the proposal of a sustainable development goal for ocean and coasts and for a global concept of marine spatial planning. Martin is a member of the leadership council of the Sustainable Development Solutions Network – a global initiative for the United Nations. The Solutions Network mobilizes scientific and technical expertise from academia, civil society, and the private sector in support of sustainable development problem solving at local, national, and global scales.

Sebastian Unger

Sebastian Unger studied Biology and Political Science. He is the head of the Ocean Governance unit and Scientific Coordinator of the Research Cluster Global Contract for Sustainability at the IASS (Institute for Advanced Sustainability Studies) in Potsdam. His current research is concerning political transformation processes for the Conservation und Sustainable Development of the oceans. Mr. Unger worked as Deputy Secretary of the OSPAR Commission for the Protection of the Marine Environment of the North-East Atlantic and for the Federal Foreign Office in Berlin, Germany.

Kate Houghton

Katherine Houghton is a Research Associate in Ocean Governance at the Institute for Advanced Sustainability Studies in Potsdam. She is specialized in international environmental law and the law of the sea and researches emerging sustainability issues at the junction between international law and international governance processes. She holds an LLM in international law from the University of Kiel, an MALD from the Fletcher School of Law and Diplomacy and
Sarah Fiona Gahlen
Sarah Gahlen was born in 1983 in Berlin, Germany. She began her Studies of Law in 2002 at the Humboldt University of Berlin and 2005/2006 she was “Maîtrise en droit international et européen” at Université de Rouen in France. She got the First State Exam in Law in 2007 in Berlin; 2008/2009 her LL.M. in Commercial Law at King’s College London and 2009-2011 she absolved the Legal Traineeship (“Rechtsreferendariat”) under the auspices of Kammergericht Berlin, including working experiences (“Stationen”) at the Federal Foreign Office in Berlin, the lawfirm Taylor Wessing in Hamburg (department “Shipping/Commercial”), the German Embassy in Ottawa/Canada. Sarah Gahlen received her second State Exam in Law in 2011 at the Kammergericht Berlin and from 2007-2011 she got working experience as a freelancer in the lawfirm Dr. Schulte und Partner, Berlin. She also holds a Scholarship at the IMPRS since December 2011.

Workshop: Games and Comics for Ocean Sustainability

Jörn Schmidt
Jörn is social ecologist and member of the working group “Sustainable Fisheries” at the Department of Economics, Kiel University. Jörn is currently working in the realm of social-ecological systems and concepts of sustainability in the ocean. He is contributing to several Experts Groups within ICES and is co-chairing a working group on focusing on the coupling of economic and ecological model approaches. As official ICES representative, he is attending meetings of the UN Ad Hoc Working Group of the Whole for the Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socio-economic Aspects. He is also in the editorial board of the ICES Journal of Marine Sciences.

On the aspects of innovative new methodologies, he co-developed the game 'ecoOcean' and is currently further exploring the possibilities of games for education and stakeholder participation also with respect to marine spatial planning. Most of Jörn’s work is of interdisciplinary nature. At Kiel University, he is working as fisheries ecologist in the Department of Economics closely together with economists (Martin Quaas) on a daily basis, to develop coupled ecological-economic models. Within the cluster, he is cooperating on topics like concepts of sustainability in the ocean with legal academics (Nele Matz-Lück and Erik van Doorn), geographers (Barbara Neumann), artists (Tom Duscher) and political scientists (Ulrike Kronfeld-Goharani). Furthermore he is collaborating internationally on participatory approaches and game development with anthropologists, (Birgit de Vos, LEI-Wageningen, Netherlands), sociologists, (Dorothy Dankel, IMR Bergen, Norway and Doug Wilson, IFM, Aalborg University, Denmark), economists, (Jim Murphy and Gunnar Knapp, University Alaska Anchorage, USA, Eric Buisman, LEI, Den Haag, Netherlands) and environmental scientists, (Stephanie Pfirman, Earth Institute, Columbia University, USA) and fisheries biologist, (Dave Reid and Sarah Kraak, Marine Institute, Galway, Ireland) and on coupled model approaches with economists, (Eric Thunberg NOAA, Woods Hole, USA and Dan Holland NOAA, Seattle, Olivier Thébaud, IFREMER, France) and fisheries scientists (Rasmus Nielsen, DTU-Aqua, Copenhagen, Denmark).

Chris Vicari
Chris Vicari is a doctoral student at Columbia University and is a game designer, games researcher, and writer. He is an affiliate of the Games for Learning Institute (G4LI) and the Real-World and Social Impact Games Lab at Teachers College. His research focus is on how environment and context influence game play and...
learning, where aspects of the environment and the people one plays games with could affect engagement, desire for continued play, and learning. His aim is to gain insight into more informed design, effective implementation of games in different environments, and provide a stronger consideration for learners and their preferences.