

Ocean Frontier Institute (OFI): Excellence, Impact and Engagement Committee

The Excellence, Impact and Engagement Committee (EIEC) provides guidance on OFI's research focus, reviews annual progress reports and funding allocation, project development and strategic direction.

The EIEC also ensures mechanisms are in place to exceed expectations for mid-term funding renewal.

Members are:

- **Geoff Munro (EIEC chair), Owner, Trestle Networks Inc.**



Before retiring from the Federal Government in 2013, Geoff Munro was the chief scientist of Natural Resources Canada (NRCan). During this time, Mr. Munro also held the positions of assistant deputy minister of Innovation and Energy Technology Sector (2009-2013) and associate deputy minister of Science and Policy Integration (2007-2009). He was responsible for positioning NRCan's science and technology within the Canadian innovation system and in broader international arenas. He led the development and implementation of the department's science and technology strategy, and worked with the departmental Science and Technology Board to keep it current.

Mr. Munro held many senior positions, including: director general of Science and Programs for NRCan's Canadian Forest Service (CFS); director general of the CFS at the Great Lakes Forestry Centre in Sault Ste. Marie; and director, Research and Development for the fish, forestry and wildlife programs at the Ontario Ministry of Natural Resources.

After graduating in 1974 with a B.Sc. in biology from Carleton University, Mr. Munro conducted Dutch elm disease research and went on to the private sector to work on the operational use of research and development products and services. He also spent several years with the Forestry Branch of the Manitoba Department of Natural Resources.

Munro continues to work in the innovation system as owner of Trestle Networks Inc., which provides advanced networking services to customers worldwide.

- **Mark Abbott, Director and President, Woods Hole Oceanographic Institution**



Mark Abbott is the tenth director and president of Woods Hole Oceanographic Institution, effective Oct. 1, 2015. Prior to that he was dean of College of Earth, Ocean and Atmospheric Sciences (CEOAS) at Oregon State University, an OSU associate professor, a member of the technical staff at the Jet Propulsion Laboratory and an assistant adjunct professor in the Marine Life Research Group at the Scripps Institution of Oceanography from 1982 to 1988.

Dr. Abbott's research focuses on the interaction of biological and physical processes in the upper ocean and relies on both remote sensing and field observations. He is a pioneer in the use of satellite ocean color data to study coupled physical/biological processes. He has advised the Office of Naval Research and the National Science Foundation on issues regarding advanced computer technology and oceanography. He was also a member of MEDEA, which advised the federal government on issues of national security and climate change.

In 2006, Dr. Abbott was appointed to a six-year term on the National Science Board, which oversees the National Science Foundation and provides scientific advice to the White House and to Congress. In 2011 he received the Jim Gray eScience Award, presented by Microsoft Research in honor of a nationally recognized researcher who has made outstanding contributions to data-intensive computing.

He has been a member of the Board of Trustees for the Consortium for Ocean Leadership, and served as president of The Oceanography Society from 2013-2014. He also served on the Board of Trustees for the University Corporation for Atmospheric Research. Dr. Abbott holds a B.S. in conservation of natural resources from the University of California, Berkeley, and a Ph.D. in ecology from the University of California, Davis.

- **Mark Abrahams, Memorial University of Newfoundland, Dean of Science and Associate Vice-President (Research) *pro tempore***



Mark Abrahams is a professor in the Departments of Biology and Ocean Sciences and has been the Dean of Science since 2008. From Sept. 1 to Oct. 31, 2017, Dr. Abrahams served as Vice-President (Research) Pro Tempore. Prior to that role, he served as Associate Vice-President (Research) Pro Tempore from Jan. 1 to Aug. 31, 2017.

He holds a B.Sc. (honours) in zoology from the University of Western Ontario, a M.Sc. in biology from Queen's University and a PhD in biology from Simon Fraser University.

Dr. Abrahams' research, which is funded in large part by the Natural Sciences and Engineering Research Council (NSERC), focuses on non-lethal predator-prey interactions in aquatic ecosystems. Recent research has investigated how these dynamics are mediated by changes in the

physical environment, and the insight this provides into understanding the maintenance or loss of biodiversity.

Prior to joining Memorial University in 2008, he spent 18 years as a faculty member at the University of Manitoba.

- **Barbara Bellissimo, Senior Vice-President, Desjardins General Insurance Group**



Ms Bellissimo is responsible for managing both the sales and operations of a \$2 billion organization. A great communicator, known for her vision and ability to set strategy and achieve goals, she has held several influential senior leadership roles at State Farm in both the U.S. and Canada.

Ms Bellissimo holds a Bachelor of Arts from the University of Western Ontario and is a Fellow Chartered Insurance Professional. An influential advisor in the insurance industry, she is currently the Chair of the Board of Western University's Institute for Catastrophic Loss Reduction and is a past board member for the Insurance Bureau of Canada.

Renowned for developing individuals and teams to reach their full potential, Ms Bellissimo's passion and expertise extends beyond the boardroom. She is dedicated to the advancement of women in business and has been a Board Member of the International Women's Forum since 2008. In 2001, Ms Bellissimo led the North American expansion of the State Farm Women's Network, a program that brings employees together to explore women's business issues and facilitates the development of future leaders.

- **Isabelle Desmartis, Assistant Deputy Minister, Science and Technology and Chief Executive Officer of Defence Research and Development Canada**



As Assistant Deputy Minister of Science and Technology (S&T), Ms. Desmartis oversees the investment in S&T for the Department of National Defence (DND) and the Canadian Armed Forces (CAF). Bringing leadership to national issues of defence and security, Ms. Desmartis is also the Chief Executive Officer of Defence Research and Development Canada (DRDC), a national network of science and technology research centres with 1300 employees supporting the defence and security communities.

Previously serving as the Director General of Policy Planning at DND, Ms. Desmartis led the development of Canada's defence policy Strong, Secure, Engaged, and contributed strategic policy advice to senior DND/CAF leadership on current and emerging global trends in the defence and security domains. Key policy files included strategic defence, the Arctic, cyber and space security, regional and functional strategic analysis on global trends, as well as arms control and non-proliferation. Particularly in the areas of international and national security, Ms. Desmartis has extensive experience in intelligence and policy issues. From 2011 to March 2015, she served as the Assistant Chief of Defence Intelligence supporting the Chief of Defence Intelligence for DND and the CAF in all leadership functions. As Director of Strategic Analysis at National Defence from 1998 to 2005, she worked in various policy functions including weapons of mass destruction and arms control. From 2006

to 2011, Ms. Desmartis occupied various positions in the areas of national and transportation security, including Director of Intelligence and Senior Director of Aviation Security Policy at Transport Canada.

Ms. Desmartis trained as a lawyer and is a graduate of Laval University, where she earned a PhD in international security.

- **George Enei, Assistant Deputy Minister, Science and Technology, Environment and Climate Change Canada**



Since joining the Public Service in 1988, Mr. Enei worked in various positions in Fisheries and Oceans Canada (Central and Arctic Region) before moving to Ottawa in 2001 to join the Privy Council Office, where he provided strategic policy advice on the government's priorities and overall environmental agenda.

After joining Environment Canada in 2002, he led integration efforts on key government files involving conservation and environmental protection, and contributed to the international stage as the President of the Bureau and Chair of the Organization for Economic Co-operation and Development (OECD) Chemicals Committee and Working Party on Chemicals, Pesticides, and Biotechnology. From 2011 to 2016 he was the Assistant Deputy Minister of the Corporate Services Branch, and Chief Information Officer, with responsibility for IM and IT related activities, property management services, as well as departmental security.

In June 2016 he was named Assistant Deputy Minister, Science and Technology Branch. He holds a Bachelor of Applied Science (Civil Engineering) from the University of Toronto and a certificate in Municipal Administration from Mohawk College in Hamilton. He is a registered Professional Engineer in the province of Ontario.

- **Heide Hackmann, Executive Director, the International Council for Science (ICSU)**



Ms Hackmann joined ICSU as Executive Director in March 2015, following eight years as Executive Director of the International Social Science Council. She read for a M.Phil in contemporary social theory at the University of Cambridge, United Kingdom, and holds a PhD in science and technology studies from the University of Twente in the Netherlands. She has worked as a science policy maker, researcher and consultant in the Netherlands, Germany, the United Kingdom and South Africa. Before moving into the world of the international councils, Ms Hackmann worked as Head of the Department of International Relations and Quality Assessment of the Royal Netherlands Academy of Arts and Sciences. Her career in science policy dates back to the early 1990s when she worked at the Human Sciences Research Council in South Africa.

Ms Hackmann holds membership of several international advisory committees, including the Scientific Advisory Board of the Potsdam Institute for Climate Impact Research in Germany and the Board of the Stockholm Resilience Centre in Sweden. She currently co-chairs the 10-Member Group of the United Nations Technology Facilitation Mechanism to support the implementation of Agenda 2030.

- **Jim Hanlon, CEO of the Institute for Ocean Research Enterprise (IORE)**



Jim is a 30-year veteran of the Canadian tech industry, having worked in design, marketing and management for companies in Atlantic Canada, Ontario and New England. His career has spanned the aerospace and defence sectors as well as the marine environmental monitoring field. Over the years, Mr. Hanlon has worked in senior management positions with several large publicly traded multinationals. He has also sampled the waters of the entrepreneurial well as an owner in two separate high-tech companies which were eventually acquired by international firms.

His personal passion is innovation and its impact on the competitiveness of Canadian industry. Mr. Hanlon is a proud alumnus of the Nova Scotia Technical College (now Dalhousie University Faculty of Engineering) with a degree in electrical engineering. He is a registered professional engineer in Nova Scotia, and holds MBA in marketing from Saint Mary's University in Halifax.

- **Marlon Lewis, Scientific Director, OFI**



The former Chair of the Department of Oceanography at Dalhousie University, Dr. Lewis is an award-winning researcher whose honours include the Lindemann Award from the American Society for Limnology and Oceanography, a Special Outstanding Achievement Award from NASA, a Killam Prize from Dalhousie University, a Poste Rouge from the French Centre Nationale de Recherche Scientifique and the Izaak Walton Killam Professorship at Dalhousie. He was also named Entrepreneur of the Year in the Technology category in Atlantic Canada and listed in the Top 50 CEO's in Atlantic Canada.

He holds adjunct appointments at Bigelow Laboratory for Ocean Sciences, the Ocean University of China, Shandong University and Xiamen University.

Dr. Lewis has served on numerous advisory councils and boards including the U.S. Woods Hole Oceanographic Institution, the Council of Canadian Academies and the Small and Medium Enterprise Advisory Committee to the Canadian Minister of International Trade.

He received a Bachelors and Masters in Science and Ecology at the University of Maryland and a Ph.D. in Biology from Dalhousie University in 1984.

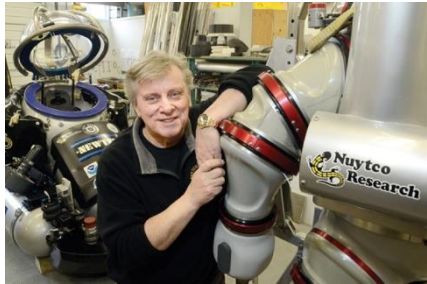
- **Karin Lochte, Director, Alfred Wegener Institute, Helmholtz Centre**



Dr. Lochte was with the Polar and Marine Research in Bremerhaven, Germany, from November 2007 to November 2017. She was the German delegate of the "Scientific Committee on Antarctic Research" since 2008 and its vice-president since 2012. She has chaired diverse national and international committees, including the Scientific Commission of the German Wissenschaftsrat, the "Senatskommission für Ozeanographie", the Konsortium Deutsche Meeresforschung and the Wissenschaftliche Kommission Niedersachsen.

Prior to her directorship at the Alfred Wegener Institute, Dr. Lochte was involved in scientific research on bacteria in sea ice and bacterial role in carbon and nitrogen cycling. She also lectured on Biological Oceanography at the universities of Rostock and Kiel. She was head of the research unit Biological Oceanography at the GEOMAR in Kiel, and of a similar research unit at the Leibniz-Institut für Ostseeforschung in Warnemünde. In 1994, Dr. Lochte received her Venia Legendi at the University of Bremen. Prior to her professorship, she worked on the topic “Deep Sea Microbiology” at the Institut für Meereskunde, University of Kiel. She received her PhD in Marine Biology at the University College of North Wales, UK in 1984.

- **Phil Nuytten, President and founder of Nuytco Research Ltd and Can-Dive Services Ltd.**



An internationally recognized pioneer in the diving industry, Mr. Nuytten has spent 40 years creating deepwater dive products that have opened the ocean’s depths to exploration and industry. Through his companies, Nuytco and Can-Dive, he has developed the technology to allow longer-length diving expeditions with increased safety. His one-atmosphere systems – the hard-suits ‘Newtsuit’ and ‘Exosuit’, and his deep-diving “DeepWorker” submersibles – are renowned internationally.

Mr. Nuytten was one of the forces behind the ‘Sustainable Seas Expeditions’, a five-year initiative by the National Geographic Society and NOAA to study deep ocean environmental impact. He has trained astronauts from NASA and the Canadian Space Agency to pilot the DeepWorker Submersibles for the NASA Extreme Environment Operations (NEEMO) project, a multi-year research project. Mr. Nuytten has spent more than 40 years developing undersea systems that have the safety of the diving technician as their common theme. His goal has been to provide scientific, technical, military, and sport divers full access to continental shelf depths without the hazards of decompression, so humans can explore, learn about, and protect the world’s ocean.

- **Kathy Sullivan, Senior Fellow, Potomac Institute and Ambassador at Large, Smithsonian National Air & Space Museum**



Dr. Sullivan was the 2017 Charles A. Lindbergh Chair of Aerospace History at the Smithsonian Institution’s National Air and Space Museum (NASM). She served as Under Secretary of Commerce for Oceans and Atmosphere and Administrator of the National Oceanic and Atmospheric Administration (NOAA) in the USA from 2011 to 2017. She was the inaugural director of the Battelle Center for Mathematics and Science Education Policy in the John Glenn School of Public Affairs at Ohio State University.

Prior to joining Ohio State, Dr. Sullivan served a decade as President and CEO of the Center of Science and Industry (COSI) in Columbus, Ohio, one of the nation’s leading science museums. She joined COSI after three years’ service as Chief Scientist at NOAA, where she oversaw research and technology programs agency-wide. Dr. Sullivan was one of the first six women selected to join the NASA astronaut corps in 1978 and holds the distinction of being the first American woman to walk in space. She flew on three shuttle missions during her 15-year tenure, including the

mission that deployed the Hubble Space Telescope. Dr. Sullivan has also served on the National Science Board (2004-2010) and as an oceanographer in the U.S. Navy Reserve (1988-2006). She holds a Bachelor's degree in Earth Sciences from the University of California at Santa Cruz and a Doctorate in Geology from Dalhousie University in Halifax, Nova Scotia. She is a member of the American Academy of Arts and Sciences and the U.S. National Academy of Engineering.