ComDef 2023

Research and Development

Marshalling Technology Towards Common Goals

10th February 2023
Royal Norwegian Embassy, Washington, DC

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ComDef 2023 Research and Development Conference

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Individuals with disabilities requiring special accommodations should contact Quentin Whiteree at (703) 760 0762 at least two weeks prior to the event.

Schedule of Events

0820-0830 **WELCOME: HE. AMB. Anniken Krutnes**, *Norway's Ambassador to the United States*

0830-0840 **WELCOME: Quentin Whiteree**, *President, IDEEA, Inc.*

INTRODUCTION OF CO-MODERATORS

- **Dr. Dana Johnson**, *Director, International Outreach and Policy, OUSD(R&E)*
- **MGen. Odd-Harald Hagen (Army)**, *Defense Attaché, Royal Norwegian Embassy, Washington, DC*

0830-0910 **KEYNOTE: THE IMPORTANCE OF INTERNATIONAL DEFENSE S&T COOPERATION**

- **Professor Kenneth Ruud**, *Director General, FFI (Norwegian Defence Research Establishment)*

0910-1015 **ACCELERATING TECHNOLOGY TO MEET DEFENSE PRIORITIES ROUNDTABLE**

- **Ms. Kristen Baldwin**, *Deputy Assistant Secretary of the Air Force for Science, Technology and Engineering (SAF/AQR)*
- **Mr. Maynard Holliday**, *Deputy Chief Technology Officer for Critical Technologies (DCTO[CT]), OUSD(R&E)*
- **Dr. Ninh Duong**, *Minister/Counselor Defence Science, Embassy of Australia, Washington, DC*
- **Lois Nicholson**, *Counsellor, Defence Acquisition and Technology, British Embassy, Washington, DC*

Moderator: **Brett B. Lambert**, *Managing Director, The Densmore Group*

1015-1030 **BREAK**

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1030-1130 **DEVELOPING INCENTIVES AND IDENTIFYING OPPORTUNITIES TO COLLABORATE ROUNDTABLE**

- **Dr. Dana Johnson**, *Director, International Outreach and Policy, OUSD(R&E)*
- **Dr. Bindu Nair**, *Director of Basic Research, OUSD(R&E)*
- **Col. Corey Beaverson, USAF**, *Director, Global Capabilities Programs, OUSD(R&E)*
- **Colonel Marcia Quigley**, *Deputy Director, Coalition Warfare Program (CWP), OUSD(A&S)/ ASD(IBP)/IC*
- **Colonel Kim, Yongsun**, *Logistics Attaché, Embassy of the Republic of Korea*

1130-1150 **NATO DEFENCE INNOVATION ACCELERATOR FOR THE NORTH ATLANTIC (DIANA)**

- **Ms. Barbara McQuiston**, *Chair, DIANA Board of Directors*

Introduced by: **Dak Hardwick**, *Vice President, International Affairs, Aerospace Industries Association*

1150-1155 **INTRODUCTION TO DMAG**

- **Sander Oude Hengel**, *Defense Cooperation Attaché, Royal Netherlands Embassy and Chair, DMAG (Defense MOU Attachés' Group)*

1155-1200 **WRAP UP**

- **MGen. Odd-Harald Hagen (Army)**, *Defense Attaché, Royal Norwegian Embassy, Washington, DC*

1200-1300 **RECEPTION**

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POC: Einar Gustafson, Counselor for Defense Industry Cooperation.

The Norwegian Embassy in Washington, DC, has a strong focus on supporting Norwegian industry in the American market, with a special focus on the defense sector. The Norwegian Embassy Office of Defense Industry Cooperation is backed by Innovation Norway, the Norwegian Ministry of Defense and the Norwegian Defense and Security Industries Association.

Speakers

Kristen J. Baldwin, a member of the Senior Executive Service, is Deputy Assistant Secretary of the Air Force for Science, Technology and Engineering, Office of the Assistant Secretary of the Air Force (Acquisition, Technology and Logistics), the Pentagon, Washington, D.C. Ms. Baldwin provides guidance, advocacy, and policy for the Air Force's annual $2.6 billion science and technology program and $1 billion developmental prototyping and experimentation program, conducted at 40 research sites worldwide. She provides engineering and technical management direction on digital engineering, cyber resilient weapons, corrosion control, capability development planning, and the functional management of more than 14,000 military and civilian scientists and engineers. In addition, she is responsible for providing technical advice and counsel to the Air Force Acquisition Executive on a broad range of engineering and technical management areas. As part of this role, she oversees the Air Force's international science and technology outreach via various bi-lateral and multi-lateral engagement fora, including the NATO Science and Technology Organization and the NATO Air Force Armaments Group. Before this appointment, Ms. Baldwin served as the Deputy Director for Strategic Technology Protection and Exploitation within the Office of the Under Secretary of Defense for Research and Engineering. She was the Department of Defense (DoD) lead for maintaining technology advantage by mitigating exploitation and vulnerabilities of critical missions, programs, technologies, and the industrial base. Ms. Baldwin oversaw program protection policy and related hardware and software assurance, anti-tamper, and critical technical information protection practices. A member of the Senior Executive Service since 2007, Ms. Baldwin has also served as Acting Deputy Assistant Secretary of Defense for Systems Engineering; and Deputy Director, Software Engineering and System Assurance. Before joining the Office of the Secretary of Defense, Ms. Baldwin served as a science and technology advisor in the Army's Office of the Deputy Chief of Staff for Operations and Plans. She began her career at the U.S. Army's Armament Research, Development, and Engineering Center, Picatinny Arsenal. Ms. Baldwin is a recipient of the Meritorious Presidential Rank award in recognition of exemplary service, and the National Defense Industrial Association Lt Gen Thomas R. Ferguson, Jr., Systems Engineering Excellence Award. She holds a Bachelor of Science in Mechanical Engineering from Virginia Tech and a Master of Systems Management from the Florida Institute of Technology.

Colonel Corey Beaverson currently serves as the Director of Mission Prototypes under the Office of the Under Secretary of Defense for Research and Engineering, Prototyping and Experiments Directorate, and leads the execution of Foreign Comparative Technology programs. Col Beaverson, served as commander, 47th Cyberspace Test Squadron, Joint Base San Antonio, Texas. The squadron conducts test and evaluation of offensive and defensive cyber weapon systems. Additionally, the squadron evaluates the resiliency and survivability of other weapon systems vital to executing the core functions of the Air Force in a cyber- contested environment. Finally, the squadron operates a cyber-test range responsible for presenting threat representative environments to evaluate the performance of warfighting cyber capabilities and to characterize advanced techniques. Headquartered at Joint Base San Antonio, the squadron also has a Detachment at Edwards AFB, CA and operating locations at Eglin, Peterson, Hill, and Langley AFBs. He enlisted in the Air Force in 1992 as a signals intelligence analyst and was granted a Reserve Officer Training Corps Scholarship in 1995. Following commissioning, Col Beaverson served as a measurement and signatures intelligence analyst supporting operations Allied Force, Northern Watch, Southern Watch, and Enduring Freedom. Later he served in various flight test engineer capacities supporting E-3C, T-38A, C, KC- 135R, KC-10A, C-5M, C-17A, YAL-1, F-16C/D, F-35A, and electronic warfare tests.

Dr Ninh Duong is the Minister-Counsellor Defence Science and Technology at the Embassy of Australia in Washington DC. He represents the Chief Defence Scientist in the United States and Canada, and is responsible for strategic engagement with relevant government and research organisations in North America to support defence science and technology collaboration with Australia. As part of this role, he also holds the position of Australian Deputy for The Technical Cooperation Program (TTCP). Dr Ninh Duong was previously the Program Leader Science Strategy and Policy where he was responsible for strategy development and implementation, supporting science policy and assuring science capability. He was also the Research Leader Weapon Systems Technologies where he led research relevant to weapons sensing and targeting, assured delivery of effects including information processing and guidance, stand-off detection and neutralisation of improvised threats, directed energy technologies, and collaborative weapon concepts. Other notable roles he has held include the position of Chair for the TTCP WPN TP-7 panel on Guidance Seekers Navigation and Control, Australian National Leader for the Five Eyes International Chimera Steering Group, Theme Leader for Next Generation Technologies Directed Energy Capabilities, and Program Leader for the Collaborative and Cognitive Weapons Strategic Research. Dr Ninh Duong was awarded First Class Honours in a Bachelor of Electrical/Electronic Engineering Degree and a Ph.D. in Microwave and Millimetre Wave Technology in 1994 and 1998, respectively, from the University of Adelaide. He joined the Defence Science and Technology Group in the Australian Department of Defence in 1998 where he began his career as a specialist in hardware-in-the-loop missile testing technologies.

Major General Odd-Harald Hagen is the Norwegian Defense Attaché in Washington, DC. He started his military career in the Norwegian Army in 1985. Through his service, he has held a variety of combat and construction engineer command and staff positions, chief operations at divisional level and staff positions in the Army staff and the Norwegian Defense Estates Agency. His service also includes service in KFOR, ISAF, NTM-Iraq and at HQ SACT. From November 2013 to January 2017, he served as the Chairman of the NATO Army Armaments Group. He was promoted Major-General in November 2016 when he assumed the position as Head of the Department for Defence Policy and Long Term Planning in the Royal Norwegian Ministry of Defence, a position he held until August 2021. Major General Hagen is a graduate of the Norwegian National Staff College, the Swedish National Staff College, the Norwegian Defense University College, King's College London and the UK Royal College of Defence Studies. He holds a Bachelor in Military Construction Engineering, a Master of Science in Business and Administration, a Master in International Security and Strategy from King's College London and is an alumni of the Royal College of Defence Studies.

Mr Sander Oude Hengel is the Defence Cooperation Attaché at the Royal Netherlands Embassy and the Chairman of the DMAG (Defence Materiel Attaché Group). He has worked for the Netherlands Ministry of Defence for over fifteen years. He started as a political analyst with the Afghanistan team in 2007 and subsequently became team leader for the Afghanistan and Africa desks at the MoD. During this period, he voluntarily deployed to Afghanistan as an army officer several times and gained valuable experience at the operational and strategic level, working closely with international partners. In 2015, he became the Head of the Non-proliferation Desk. In 2018, he was appointed strategic advisor at the Directorate-General of Policy at the MoD. In this role, he advised the political leadership on developments regarding defence materiel and defence industry policy in the European context and in collaboration with American departments and agencies. As Head of the Materiel Department, he managed a broad team of advisors focusing on acquisition and international cooperation. He holds bachelor degrees in both maritime engineering and history and has a master's degree in the history of international relations, taken at the University of Amsterdam. In 2022, he completed the international training course Session Européenne des Responsables d'Armement (SERA) in Paris, focusing on acquisition and armaments.

Dak Hardwick currently serves as the Vice President, International Affairs at the Aerospace Industries Association (AIA). His primary responsibilities include international defense, industrial cooperation, space trade and technology security issues. Before joining AIA, Hardwick worked at Harris Corporation, an international communications and information technology company. At Harris, he was the primary interface with the U.S. Government for a variety of Harris government communication programs. A former Presidential Management Fellow, Hardwick began his career at Headquarters, Marine Corps as an appropriations budget analyst. He later transitioned to the Office of the Secretary of Defense where he helped establish the Office of the Assistant Secretary of Defense for Homeland Defense after September 11, 2001 and later held a variety of critical national security positions, including serving as the country director for Georgia and the Republic of Moldova and director for Peacekeeping Operations. Hardwick holds a B.S. in public affairs from Indiana University in Bloomington, Indiana and a Master of Public Administration from West Virginia University in Morgantown, West Virginia. He is also a graduate of the Sorensen Institute's Political Leaders Program at the University of Virginia.

Mr. Maynard Holliday is the Deputy Chief Technology Officer for Critical Technologies (DCTO(CT)). In this capacity, he oversees investment and capability analysis of the Pentagon's critical technology areas. He has oversight of 11 principal directors assigned to those critical technology portfolios and their roadmaps — the comprehensive strategies to manage, provide oversight and guide choices for each modernization priority area. These critical technology areas include 5G; Advanced Computing & Software; Directed Energy; Human-Machine Interfaces; Hypersonics; Integrated Network Systems-of-Systems; Integrated Sensing & Cyber; Microelectronics; Renewable Energy Generation & Storage; Space Technology; and Trusted Artificial Intelligence & Autonomy. Mr. Holliday has over 30 years of professional experience leading technological innovations, in both government and the private sector. Most recently, he was a Senior Engineer at the RAND Corporation working on autonomous vehicle safety metrics and policy, explainable artificial intelligence, swarm robotics and drone defense. Previously, he served as Senior Technical Advisor and Special Assistant to Frank Kendall, Under Secretary of Defense for Acquisition, Technology and Logistics. Mr. Holliday helped establish the Defense Innovation Unit Experimental and was a member of the Defense Science Board. Mr. Holliday has also worked for the Department of Energy (DOE) as a project manager for the U.S.-Russia Nuclear Material Security Task Force. He was awarded the DOE's Meritorious Service Award, its highest, for his exceptional service in helping secure tons of weapons grade nuclear material. Prior to his government service, Holliday was a senior engineering and robotics professional at the Lawrence Livermore and Sandia National Laboratories, as well as various robotics start-ups and technology companies in Silicon Valley. Mr. Holliday graduated from Carnegie Mellon University with a Bachelor of Science in Mechanical Engineering and then earned a Master of Science in Mechanical Engineering Design, with an emphasis on robotics, international security and arms control from Stanford University.

Dr. Dana J. Johnson is the Director, International Outreach and Policy, Office of the Under Secretary of Defense (Research and Engineering) (OUSD(R&E)), U.S. Department of Defense. She is the principal advisor to the USD (R&E) and OUSD(R&E) senior leadership on matters concerning international engagement, defense strategy and policy, and acts as the single point of contact within OUSD(R&E) on international and national defense policy matters that fall within the scope of R&E. She also serves as the U.S. National Coordinator for U.S. participation in the NATO Science and Technology Organization. Dr. Johnson joined OUSD(R&E) in August 2018 from the U.S. Department of State where she was the Senior Advisor for Space Policy, Office of Emerging Security Challenges, Bureau of Arms Control, Verification and Compliance (AVC/ESC). At State she was responsible for providing analysis and expert advice on national security space policy and issues in support of the Department's strategic and foreign policy objectives and implementing U.S. national space policy. Prior to joining State in January 2010, Dr. Johnson's professional experience included the Senior Analyst for Space and Missile Defense at the Northrop Grumman Analysis Center, and a national security researcher/policy analyst at the RAND Corporation. Earlier experiences included Member of the Technical Staff at Rockwell International's Satellite Systems Division, and as a diplomatic historian at the State Department's Office of the Historian. Dr. Johnson is an adjunct professor at Georgetown University, teaching classes on space policy, and has also taught at George Washington University and Missouri State University. She has a Ph.D. in International Relations from the University of Southern California, an M.A. in International Studies from The American University, and an A.B. in Government from the University of Redlands, and has written and contributed to numerous books, monographs, and presentations. In June 2021 Dr. Johnson received the Office of the Secretary of Defense Medal for Exceptional Civilian Service for her leadership in furthering OUSD(R&E)'s science and technology cooperation with U.S. allies and partners.

COL. Kim, Yongsun, Army is the Defense Cooperation Attaché at the Embassy of the Republic of Korea. Previously, he was the Defense Attaché to NATO, the EU and BENELUX from August, 2018 to Aug, 2021. He was the 23rd Infantry Division, Deputy Commander between August, 2021 and July, 2022. He has held positions in Logistics Support Command and as Ammunition Plan Officer in the Joint Chiefs of Staff, Forces Plan Department. He has been educated at the Korea Military Academy and Korea National Defense University receiving an MA in Defense Management.

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HE. Anniken Krutnes is Norway's Ambassador to the United States. An expert in security policy, law of the sea and Arctic issues, Amb. Krutnes has served with the Norwegian Ministry of Foreign Affairs since beginning as a trainee in 1994. In her previous position with the Ministry, she served as Deputy Director General of the Department of Security Policy. Before that, she was Norway's Ambassador for Arctic and Antarctic Affairs. Amb. Krutnes has had postings in several European countries, including ambassadorships of the Netherlands and Luxembourg. She was recently a member of the UN Group of Governmental Experts on Advancing responsible State behavior in cyberspace in the context of international security. She holds a Master of Laws from the University of Oslo and a Master of Science in Economics and Administration from the Norwegian School of Economics, and has also studied international management at Universittá Luigi Bocconi in Milan, Italy. Amb. Krutnes is married and has three adult children.

Mr. Brett Lambert is the Managing Director of The Densmore Group, LLC, a national security and intelligence consultancy. From 2015-2019, he served as Vice President of Corporate Strategy at Northrop Grumman, where his duties for the CEO included development and execution of issues relating to overall corporate strategy, organization, M&A, strategic partnerships, and new market expansion. Prior to joining Northrop Grumman, he was an Executive-in-Residence with Renaissance Strategic Advisors, a Senior Fellow at the National Defense Industrial Association (NDIA) and served on several corporate and SSA boards involved in national security and intelligence. Mr. Lambert is currently a life member of the Council on Foreign Relations (CFR), a Senior Associate (nonresident) at the Center for Strategic and International Studies (CSIS), Chairman of the Board of the Advanced Robotics Manufacturing Institute (ARM) led by Carnegie Mellon University, a board member of The Henry L. Stimson Center, and in 2016 was appointed by the Secretary of Defense to serve on the Department's Reserve Forces Policy Board. Mr. Lambert also serves on the board of the National Defense Industrial Association (NDIA) and co-chairs their effort to examine demands for future supply chain security for advanced systems. In 2009 Mr. Lambert was appointed by President Obama as the Deputy Assistant Secretary of Defense for Manufacturing and Industrial Base Policy, a position he held through 2013. As the DASD, Mr. Lambert served as the principal advisor to the USD (AT&L) on all matters relating to the defense industrial base, including industrial capabilities and assessments; defense industry mergers, acquisitions and consolidation; preservation of essential industries and technologies; and other industrial related matters. He attended graduate school at Jawaharlal Nehru University on a Rotary Graduate Scholarship he received during his senior year at Kansas State University. He also worked as an independent journalist in India, Pakistan, and Burma.

Ms. Barbara McQuiston is Chair of the NATO DIANA Board of Directors. DIANA's goal is to enhance and accelerate transatlantic cooperation on dual-use technology solutions and help NATO work more closely with private-sector entities, academia, and other non-governmental entities. DIANA connects defense personnel from across the Alliance with the best and brightest scientists, researchers, start-ups, and technology companies to solve critical defense and security challenges. DIANA is building a network across the Alliance in accelerators, test centers, and experimentation to help start-ups and non-traditional companies better support the NATO alliance capabilities and requirements. DIANA will use challenge problems to solicit innovative solutions from across the Alliance and across technology arenas. DIANA focuses on key emerging technologies, such as artificial intelligence, data, quantum-enabled technologies, autonomy, biotechnology, novel materials and advanced manufacturing, energy and propulsion to problems across dual-use sectors such as space, energy, and security. As the Chair of the Board, Ms. McQuiston is responsible for developing rules and procedures for the Board's functions, overseeing the development of the DIANA Strategic Direction, and working with defense science and technology leaders across the Alliance to develop a transatlantic innovation ecosystem their Allies can leverage to develop dual-use solutions to emerging and disruptive technology challenges. Prior to this role, Ms. McQuiston served as the Deputy Chief Technology Officer for Science and Technology (DCTO(S&T)) in the Office of the Under Secretary of Defense for Research and Engineering (OUSD(R&E)) at the Pentagon. Ms. McQuiston led the Department's work to create DoD's technology advantage, advocated for the Department's S&T workforce and foundational laboratory infrastructure, oversaw the DoD Federally Funded Research and Development Centers and University Affiliated Research Centers, advised on the Department's critical technology protection policy, and oversaw the health of the Defense technical industrial base and innovation communities for future technology. Ms. McQuiston previously spent nearly a decade in Government service at the Defense Advanced Research Projects Agency (DARPA), where she served in the Defense Science Office, the Strategic Technology Office, and finally as Special Assistant to the Director for Energy. Throughout her tenure at DARPA, Ms. McQuiston directly supported the development of significant communications technologies and championed the development of alternative energy programs to reduce DoD's dependency on imported fossil fuels. In 2010, she received the Office of Secretary of Defense Medal for Exceptional Public Service for her accomplishments in these leadership roles.

Dr. Bindu Nair was appointed to the Senior Executive Service (SES) in March 2020 and is now serving as the Director of Basic Research within the Office of the Under Secretary of Defense (OUSD). In this role, she is responsible for oversight and coordination of the Department's $2.5 billion investment in basic science. This investment supports high risk and high pay-off basic research projects in fields including physical science, life science, environmental science, applied mathematics, and others that probe the limits of today's technologies and discover new phenomena and know-how that may ultimately lead to future technologies for the Department. From 2012-2017, Dr. Nair served in various roles including Acting Director and Deputy Director in the Human Performance, Training and Biosystems (HPT&B) Directorate within the Office of the Secretary of Defense. In this role, Dr. Nair was involved in overseeing a broad range of DoD's science and technology programs that support Warfighter effectiveness. Her specific areas of responsibilities in the office were in environmental technologies, bio-assist technologies (for exoskeletons and prosthetics), human machine teaming, and social behavioral modeling in the information environment. Prior to her assignment to OUSD, Dr. Nair worked for the Department of the Army with oversight responsibilities over the science and technology program in power and energy. She has worked in the DoD laboratory system at Natick Soldier Research, Development and Engineering Center as well as in private industry at Foster Miller (Waltham, MA). Her research expertise is in the field of Material Science and Engineering including nanomaterials, polymers, and organic electronic materials, and she has taught graduate level courses in Polymer Synthesis. She has published primarily in membrane and materials development fields and holds patents in fuel cell technologies. Dr. Nair holds a B.Sc. from the University of Florida and a Ph.D. from the Massachusetts Institute of Technology in Materials Science and Engineering.

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Lois Nicholson has the role of Counsellor Defence Acquisition and Technology, and a member of the British Defence Staff Management Board at the British Embassy Washington DC. Lois leads a team responsible for working with the US in the areas of defence acquisition and trade, research and technology and future capability development. In this role, she is responsible for the cost-effective acquisition, timely management and delivery of a portfolio of $13bn UK Foreign Military Sales (FMS) programme and Direct Commercial Sales (DCS) with the US; as well as delivering prosperity objectives by supporting specific UK export campaigns, seeking opportunities for UK companies to access US Defence markets. Building on opportunities offered by UK's inclusion in the trusted US National Technology Industrial Base (NTIB), Lois partners with US, Australia and Canada governments to seek ways of building resilience in the industrial base in each nation, including improving access to advanced technologies. On behalf of the UK's Chief Scientific Adviser, she is responsible for the UK/US bilateral science and technology co-operation and the development of future and new collaborative opportunities, and is responsible as the UK deputy for delivering the strategic intent of the 5 Eyes TTCP S&T collaboration. Lois is also responsible for advancing the UK/US next generation capability considerations on behalf of the VCDS, by actively promoting stronger cooperation, and through developing a programmatic approach, aiming to align bilateral cooperation on force development, acquisition, development of operational concepts, and science and technology, with our common strategic ends.

Colonel Marcia Quigley is the Deputy Director, Coalition Warfare Program (CWP) and Chief of Staff in the International Cooperation Directorate of the Office of the Under Secretary of Defense for Acquisition and Sustainment, Assistant Secretary of Defense Industrial Base Policy, Pentagon, Washington DC. As the Deputy Director of CWP, she leads a team collaboratively addressing strategic technology gaps for current and future missions, developing interoperability solutions for coalition operations, and developing and strengthening defense partnerships. As the Chief of Staff for IC, she works with Directorate leadership on human resource, budgeting, and strategic goals and objects to complete the International Cooperation mission of strengthening key international partnerships through cooperative Acquisition, Sustainment, and Industrial Base initiative to improve interoperability and sharpen the warfighter's technology edge. Prior to leading the CWP, Colonel Quigley was commander of the 81st Mission Support Group, Keesler Air Force Base, MS where she was directed the base combat support, logistics, and service activities for 114,000 military, civilians, dependents, and retirees by leading more than 1,650 military, civilian, and contractor personnel. She holds a Bachelor of Science Degree in Environmental Engineering from North Carolina State University, a Master of Science Degree in Systems Engineering Management from Saint Mary's University and a Master of Arts Degree in Counseling and Leadership from the University of Colorado, Colorado Springs.

Professor Kenneth Ruud is Director General of the Norwegian Defence Research Establishment (FFI) since January 1 2022, and Professor in chemistry at the University of Tromsø – The Arctic University of Norway (UiT). FFI is the key institution for defence-related research and development in Norway. FFI serves as chief advisor on defence-related science and technology to the MoD and the Norwegian Armed Forces. Prof. Ruud is the Norwegian representative in the board of the NATO Science and Technology Organization and the US-Norway Defense Science and Technology Working Group. Prof. Ruud has extensive experience with research and research leadership, including as director and co-director of two Norwegian Centers of Research Excellence, and as deputy vice-chancellor of research at UiT (2013-2021). Prof. Ruud has for many years been involved in research policy, including 8 years as member of the board of the division of science at the Research Council of Norway (2007-2015) and as vice-chairman of the board of the Research Council of Norway (2019-2022). Prof. Ruud has been engaged in Norwegian and European e-infrastructure activities, including as chair of the Scientific Steering Committee of the Partnership for Advanced Computing in Europe (PRACE), and as member of the Research and Innovation Advisory Group of EuroHPC-JU. He has since 2015 been a member of the board of Sigma2, the company providing e-infrastructure resources to Norwegian researchers. Prof. Ruud holds a PhD (Dr.Philos.) in theoretical and computational chemistry from the University of Oslo (1998).

Quentin Whiteree, FRAeS has been President and CEO of IDEEA, Inc since 1 January, 1999. Prior to this, he was vice president of the company, responsible for business focus, with an emphasis on emerging information and computer technologies. He joined IDEEA, Inc. in 1987 and has held a series of appointments within the company. Mr. Whiteree was managing editor of Common Defense Quarterly, an international defense cooperation publication. He holds a joint BA Honors degree in Marketing from Strathclyde University, Scotland and is a past president of its Wine Appreciation Society. Mr. Whiteree is a Fellow of the Royal Aeronautical Society and Vice Chair of the Washington, DC Branch. He is a member of the Defense, Air Transportation and Security (DATS) Committee of the British American Business Association.

NORWEGIAN DEFENSE INDUSTRY

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35 Years of International Defense Cooperation

ComDef'87	Arlington, VA	Let's not Reinvent the Wheel
ComDef'88	Arlington, VA	Military Requirements for Defense Cooperation
ComDef'89	Washington DC	Sharing the Burden
ComDef'90	Washington DC	Partners in Technology Sharing
ComDef'92	Norfolk, VA	Interesting Times – International Defense Cooperation in an Age of Change
ComDef'93	Norfolk, VA	International Defense in the Clinton Era
ComDef'94	Arlington, VA	Keeping the Peace
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ComDef'98	Washington DC	Protecting the Force
ComDef'99	Melbourne, Australia	Defense Cooperation in the Asia Pacific Region
ComDef'00	Washington DC	Shifting Alliances in Defense Cooperation
ComDef'01	Washington DC	Globalism Cooperation and Defense Transformation
ComDef'02	Washington DC	Driving Interoperability - Transforming Coalitions
ComDef'03	Washington DC	Coalitions & Partners
ComDef West'04	San Diego, CA	C4ISR & Defense Transformation
ComDef 2004	Washington DC	Transformation & Cooperation at the Crossroads
ComDef Phoenix 2004	Phoenix, AZ	Manufacturing Technology, Global Supply Chains & Smart Cluster Initiatives
ComDef West 2005	San Diego, CA	C4ISR - Building the Networks
ComDef 2005	Washington, DC	Transformation and the New Realities in Defense Cooperation
ComDef West 2006	San Diego, CA	Facilitating Effective Coalitions
ComDef 2006	Washington, DC	Towards Interoperability
ComDef Tucson 2006	Tucson, AZ	Technologies for Border Security
ComDef West 2007	San Diego, CA	Joint & Coalition Cooperation in the Littorals
ComDef 2007 Ottawa	Ottawa, Canada	Immediate Technologies for Border Security
	Adelaide, Australia	Border Security Workshop at D+I
ComDef 2007	Washington, DC	Let's Not Reinvent the Wheel – 20th Anniversary
ComDef Tucson 2007	Tucson, AZ	Technology Innovations at the Border
ComDef West 2008	San Diego, CA	Towards a Common Operating Picture
ComDef 2008	Washington, DC	Defense Priorities in an Age of Persistent Conflict
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ComDef 2011	Washington, DC	Talk Softly And Wear A Hard Hat: Defense In The Age Of Fiscal Restraint
ComDef West 2012	San Diego, CA	Key Enablers for Joint and Coalition Success
ComDef 2012	Washington, DC	Understanding the Past to Inform the Future
ComDef 2013	Washington, DC	Strengthening the Cooperative Global Framework
ComDef Europe 2014	Paris, France	Creating Enduring Partnerships
ComDef 2014	Washington, DC	Sustaining the Defense Industrial Base
ComDef 2015	Washington, DC	Developing Capability, Improving Readiness
ComDef R&D 2016	Arlington, VA	Reenergizing the Technology Engine
ComDef Europe 2016	Paris, France	Developing Enduring Partnerships
ComDef 2016	Washington, DC	Driving Innovation and Capability Development
ComDef 2017	Washington, DC	Realigning Priorities in an Uncertain Era
ComDef 2018	Washington, DC	Reimagining Security Cooperation
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ComDef 2020	Washington, DC	Ensuring a Resilient and Agile Defense Industrial Base
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