



Neurotechnologies and their implications for international peace and security

24 November 2025 • Centre International de Conférences Genève

Registration and welcome coffee	8:30 – 9:15
Opening remarks	9:15 – 9:20
Keynote address – Issue framing: Neurotechnology in the context of International Security	9:20 – 9:40
Dr Robin Geiss	UNIDIR Director
Panel 1 – Neurotechnologies: What are they? Opportunities, current state of the art, challenges and future developments	9:40 – 11:15
Part 1 – Lightning talks	9:40 – 10:20
Dr Hervé Chneiweiss	Director, Neuroscience, Institute of Biology Paris-Seine Laboratory, Sorbonne University
Dr Caterina Cinel	Senior Lecturer in Brain Science and Neural Engineering, University of Essex
Part 2 – BCI drone demonstration	10:20 – 10:50
Dr Nataliya Kosmyna	Research Scientist, MIT Media Lab, Visiting Research Faculty, Google
Part 3 – A discussion and question and answers	10:50 – 11:15
Dr Sara Berger	IBM Director, Notre Dame – IBM Tech Ethics Lab, IBM Research
Moderated by Gosia Loj	Deputy Head for AI and Science & Technology, Security and Technology Programme, UNIDIR
Coffee break	11:15 – 11:30



Panel 2 – What are the risks of neurotechnology?

11:30 – 12:30

Dr Damian Eke	Assistant Professor in Ethics of Emerging Technologies, University of Nottingham, Founder, African Brain Data Network
Milena Costas Trascasas	Member of the United Nations Human Rights Council Advisory Committee, Rapporteur on Neurotechnologies and Human Rights
Dr Ricardo Chavarriaga	Group Lead, Responsible AI Innovation, Zurich University of Applied Sciences
Dr Virginia Mahieu	Director of Neurotechnology, Center for Future Generations
Moderated by Wenting He	Associate Researcher, Security and Technology Programme, UNIDIR

Lunch break

12:30 – 13:30

Panel 3 – Neurotechnology in the military domain, what are the implications?

13:30 – 16:15

Part 1 – Current uses and future trends

13:30 – 14:45

Dr Margaret Kosal	Professor and Director of Graduate Studies, Sam Nunn School of International Affairs, Georgia Tech
Dr Łukasz Kamieński	Full Professor, Faculty of International and Political Studies, Jagiellonian University, Krakow
Dr Johan de Heer	Director of Research, Technology and Innovation, Brain-Computer Interfaces Lead, Thales Group
Moderated by Sarah Grand-Clement	Researcher, Security and Technology Programme, UNIDIR

Coffee break

14:45 – 15:00

Part 2 – Implications and risks

15:00 – 16:15

Dr Noam Lubell	Professor of International Law of Armed Conflict, School of Law, University of Essex
Dr Sana Zakaria	Senior Research Leader, Science and Emerging Technology, RAND Europe
Dr Yasmin Afina	Researcher, Security and Technology Programme, UNIDIR
Moderated by Federico Mantellassi	Researcher, Security and Technology Programme, UNIDIR



Panel 4 – Towards the governance of neurotechnology

16:15 – 17:15

Dr Adedeji Ebo	Director and Deputy to the High Representative, United Nations Office for Disarmament Affairs
Prof Marilyne Andersen	Director General, Geneva Science and Diplomacy Anticipator
H.E Claudia Fuentes-Julio	Ambassador and Permanent Representative of Chile to the United Nations and other International Organizations in Geneva
Moderated by	
Dr Giacomo Persi Paoli	Head of Security and Technology Programme, UNIDIR

Closing remarks

17:15 – 17:30

Dr Giacomo Persi Paoli	Head of Security and Technology Programme, UNIDIR
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Reception

17:30 – 19:00



Keynote address



Dr Robin Geiss

Director, UNIDIR

Dr Robin Geiss is the Director of the United Nations Institute for Disarmament Research (UNIDIR). He was appointed by Secretary-General António Guterres and assumed the post in April 2021. He brings to the position over 20 years of experience in peace, security and international affairs. Previously, he served as tenured Professor and Director of the Glasgow Centre for International Law and Security at the University of Glasgow. He was also the Swiss Chair of International Humanitarian Law at the Geneva Academy of International Humanitarian Law and Human Rights and Visiting Professor at the Paris School of International Affairs, Sciences Po, Paris. Dr. Geiss has served as Legal Adviser and delegate to the UN Human Rights Council for the International Committee of the Red Cross (ICRC), and he is an ex officio member of the UN Secretary General's Advisory Board on Disarmament Matters.

Panel 1 – Part 1



Dr Hervé Chneiweiss

Director, Neuroscience, Institute of Biology Paris-Seine Laboratory,
Sorbonne University

Hervé Chneiweiss is a neurologist and neuroscientist, MD-PhD, Research Director at the CNRS and hospital neuro-oncologist at AP-HP. He is currently head of the research center Neuroscience Paris Seine (CNRS /Inserm/Sorbonne University). Trained as a neurologist (movement disorders, neurogenetics), his scientific work was mainly dedicated to the biology of astrocytes and for the last 20-y their roles in brain tumour origin, progression and plasticity, identifying new metabolic drivers and therapeutic avenues. He has authored more than 180 academic papers. He is also involved in bioethics, presently chair Inserm Ethics Committee and EMBL Ethics Board, past-chair of UNESCO International Bioethics Committee, former member French National Ethics Committee (CCNE), WHO advisory committee on developing global standards for governance and oversight of human genome editing and vice-chair of ARRIGE, expert OECD for recommendation 457 on neurotechnology in health.





Dr Caterina Cinel

Senior Lecturer in Brain Science and Neural Engineering, Director, Essex BCI and Neural Engineering Laboratory, University of Essex

Dr Caterina Cinel is a Senior Lecturer in Brain Sciences and Neural Engineering. She holds a degree in Psychology (Università di Padova, Italy) and an MSc in Cognitive Science (University of Birmingham). She obtained a PhD in Cognitive Psychology (University of Birmingham) with a thesis on multisensory feature integration in normal and brain damage individuals. Since 2004, she has been a member of the Brain-Computer Interface and Neural Engineering Lab at Essex University, where she has been a postdoc and, since February 2020 a Lecturer. At Essex she investigates decision making and collaborative BCI (based on EEG), multisensory integration and cognitive enhancement. Other research activity includes attention, feature integration in visual and multisensory perception, decision making, memory and applied cognition. She is a member of the British Psychological Society, the Experimental Psychology Society and a Fellow of the Higher Education Academy.

Panel 1 – Part 2

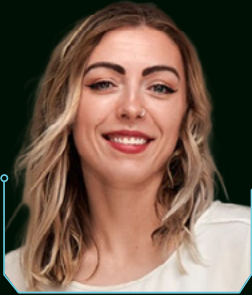


Dr Nataliya Kosmyna

Research Scientist, MIT Media Lab, Visiting Research Faculty, Google

Dr Kosmyna has over 15 years of experience in developing and designing end-to-end brain-computer interfaces (BCIs). Coming from a background in artificial intelligence, neuroscience and human-computer interaction (HCI), she is passionate about the idea of creating a partnership between AI and human intelligence, a fusion of the machine with the human brain. Dr. Kosmyna's solutions are successfully deployed in the classrooms, hospitals, workspaces, aerospace, Lower Earth Orbit, and on the Moon. These projects are also presented to general public and were tested by more than 15000 people since 2015. Nataliya won multiple awards for her work, among which is L'Oréal-UNESCO Women in Science award she received in 2016. Dr. Kosmyna has served as one of 24 international experts for UNESCO to help prepare a first draft of the Recommendation on the Ethics of Neurotechnology. She is currently serving as on the Expert Advisory Group on Neurotechnology and Children for UNICEF.





Dr Sara Berger

IBM Director, Notre Dame – IBM Tech Ethics Lab, IBM Research

Dr Sara E. Berger is a Senior Research Scientist at IBM Research, IBM AI Ethics Board Focal Point, and Director of the Notre Dame-IBM Tech Ethics Lab. She holds a BA in neuroscience and gender studies from Macalester College and a PhD in systems and cognitive neuroscience from Northwestern University, with additional training in medical humanities and bioethics. Dr. Berger began her career in pain neuroscience, spending over 15 years studying psychological, neurological, and social factors in pain perception, chronicification, and relief. She has applied both qualitative methods and neurotechnologies with AI to understand pain and predict treatment efficacy. In 2021, she was named one of MIT Tech Review's 35 Innovators Under 35 for her work applying neuroscience and digital health tools to improve chronic pain care.



Gosia Loj

Deputy Head for AI and Science & Technology, Security and Technology Programme UNIDIR

Gosia Loj is the Deputy Head of the Security and Technology Programme, where she leads the Artificial Intelligence and Science and Technology teams. Prior to this, she served in the UK government since 2018 at the Department for Science, Innovation and Technology, where she held several leadership roles including Head of the AI Safety Summit, Head of UK Cyber Strategy and International, and Head of Global Governance, spearheading UK's efforts in setting global norms and frameworks on AI, data governance and emerging technologies in multilateral fora. She also set up and led the UK's G7 Presidency, Digital and Technology Track during in 2021 and was appointed Vice-Chair for the Committee on Digital Economy Policy at OECD from 2021-23.



**Dr Damian Eke**

Assistant Professor in Ethics of Emerging Technologies, University of Nottingham, Founder, African Brain Data Network

Dr Damian Eke is a Philosopher working at the intersection of Technology, Data and the society. Eke is a Transitional Assistant Professor at the School of Computer Science, University of Nottingham. His research interests cover critical research on Responsible Research and Innovation (RRI), Ethics and governance of Emerging Technologies (especially AI and Neurotechnology), Data Ethics and governance, Neuroethics, Decoloniality in Emerging Technologies, and ICT4D.

**Milena Costas Trascasas**

Member of the United Nations Human Rights Council Advisory Committee, Rapporteur on Neurotechnologies and Human Rights

Milena Costas Trascasas holds a PhD in Law from the Complutense University of Madrid and works as human rights consultant. Between 2019 and 2025, she was a member of the United Nations Human Rights Council's Advisory Committee, and acted as rapporteur of a study on the impact of neurotechnologies on human rights. The study, presented in September 2024, has been instrumental to launch within the Human Rights Council a process to develop guidelines on this issue.

**Dr Ricardo Chavarriaga**

Group Lead, Responsible AI Innovation, Zurich University of Applied Sciences

Dr Ricardo Andres Chavarriaga Lozano was a Polymath Fellow within the Global Fellowship Initiative of the GCSP. Ricardo Chavarriaga has more than 12 years of experience in research on human-machine interaction, brain-machine interfaces, and artificial intelligence. His work is focused on responsible development of technologies that promote beneficial, humane interaction between human and intelligent machines. Ricardo is the head of the Swiss office of the Confederation of Laboratories for AI Research in Europe (CLAIRE); Senior researcher at Zürich University of Applied Sciences (ZHAW) and associate fellow at the Geneva Center for Security Policy (GCSP).





Dr Virginia Mahieu

Director of Neurotechnology, Center for Future Generations

Virginia holds a PhD in sensory neuroscience from the University of Sussex and a Postgraduate Certificate in EU Policymaking from the Vrije Universiteit Brussel. She previously worked at the Policy Foresight Unit and the Scientific Foresight Unit of the European Parliamentary Research Service, where she specialised in futures literacy, behavioural insights, and scenario planning at the science-policy interface. Aside from neuroscience, her research and writing span topics such as responsible innovation, biotechnology, precision medicine, mental health, health policy and geopolitics. Virginia's lifelong passion lies in understanding how technology shapes the human mind, society, and evolution – and vice versa.



Wenting He

Associate Researcher, Security and Technology Programme, UNIDIR

Wenting He is an Associate Researcher in the Security and Technology Programme at UNIDIR. Her areas of expertise include multilateral disarmament and arms control, diplomatic practices, international policy analysis, statistical methods and emerging technologies. Before joining UNIDIR, Wenting worked for the United Nations Office at Geneva and the Global Initiative against Transnational Organized Crime. She holds a Master's Degree in International Affairs from the Graduate Institute of International and Development Studies in Geneva, as well as a Bachelor's Degree in Diplomatic Studies from China Foreign Affairs University in Beijing.

Panel 3 - Part 1



Dr Margaret Kosal

Professor and Director of Graduate Studies, Sam Nunn School of International Affairs, Georgia Tech

Margaret E. Kosal is a Professor of International Affairs and Director of Graduate Studies at Sam Nunn School of International Affairs, Georgia Tech. Her research explores the relationships among technology, strategy, and governance, focusing on two, often intersecting, areas: reducing the threat of weapons of mass destruction (WMD) and understanding the role of emerging technologies for security.



Her work aims to understand and explain the role of technology and technological diffusion for national security at strategic and operational levels. In the changing post-Cold War environment, the most advanced military power no longer guarantees national or international security in a globalized world in which an increasing number of nation-states and non-state actors have access to new and potentially devastating dual-use capabilities. The long-term goals of her work are to understand the underlying drivers of technological innovation and how technology affects national security and modern warfare.



Dr Łukasz Kamieński

Full Professor, Faculty of International and Political Studies,
Jagiellonian University, Krakow

Prof. Kamieński holds a Ph.D. in political science from the Jagiellonian University (2005) as well as an M.Sc. in International Relations (London School of Economics and Political Science, 2001) and an M.A. in political science with a minor in international relations (Jagiellonian University, 2000). He is a Fulbright Visiting Scholar at the Center for Ethics and the Rule of Law, University of Pennsylvania (2025-2026); Visiting Researcher, Department of History and Sociology of Science, University of Pennsylvania (2023); Visiting Fellow at LSE IDEAS (2019), and the Center for International Studies at the London School of Economics and Political Science (2011) as well as a Visiting Research Fellow at the Department of National Security Affairs, Naval Postgraduate School, Monterey, C.A. (2003). He is a co-founder of the MA in Trans-Atlantic Studies program at the Institute of American Studies and Polish Diaspora and served as its head from 2007 to 2011.



Dr Johan de Heer

Director of Research, Technology and Innovation, Brain-Computer
Interfaces Lead, Thales Group

Johan de Heer directs the Thales Research & Technology organisation in Hengelo since 2007. Formerly known as T-Xchange (research collaboration between Thales R&T and University of Twente) focusing on serious games and game analytics (2008-2017). Currently known as HBA-Lab focusing on Human Behaviour Analytics. Johan holds a PhD in Psychology from Tilburg University, and did a post doc on human decision making supported by ICT. Obtained his masters in experimental psychology from the University of Nijmegen and studied electronics at Han University of applied science. Previously he worked at the Telematics Institute where he was expert group leader on the edge of cognition and technology; he was researcher at TNO and the Nijmegen Institute for Cognition and Information.





Sarah Grand-Clement

Researcher, Security and Technology Programme, UNIDIR

Sarah is researcher working across the Conventional Arms and Ammunition Programme and the Security and Technology Programme. Her areas of expertise include international security, counter-terrorism, new and emerging tech and its impact on defence and security and futures methodologies, in particular horizon scanning, serious gaming and future scenarios. She holds an MSc in Arab World Studies from Durham University and a bachelor's in International Relations from Sussex University. Prior to joining UNIDIR, Sarah was a Senior Analyst at RAND Europe, where she conducted defence and security research to aid public and third sector policymaking. She has co-authored a number of public and non-public reports on a wide range of topics relating to defence and security.

Panel 3 - Part 2



Dr Noam Lubell

Professor of International Law of Armed Conflict, School of Law, University of Essex

Noam Lubell is Professor of International Law of Armed Conflict at the University of Essex. He was Head of the Law School from 2014 to 2017. Between 2013-2019 Prof Lubell held the Swiss Chair of International Humanitarian Law at The Geneva Academy, and from 2010 to 2018 he was the Rapporteur of the International Law Association's Committee on the Use of Force. Prof Lubell is a Senior Research Fellow at the Johns Hopkins University Applied Physics Laboratory in the US, working on the legal aspects of new military technologies. In past years Professor Lubell was a Lecturer at the Irish Centre for Human Rights, National University of Ireland, Galway; the Co-Director of the International Law Amicus Curiae Clinic at the Concord Research Centre in Israel; and a Visiting Research Fellow at the Harry S. Truman Research Institute for the Advancement of Peace, at the Hebrew University, Jerusalem. In addition to his academic work, during the last thirty years Prof. Lubell has worked with a wide range of human rights and humanitarian organisations, and provided consultancies and training in human rights law and the laws of armed conflict on military courses, as well as for government bodies and the media.





Dr Sana Zakaria

Senior Research Leader, Science and Emerging Technology,
RAND Europe

Sana Zakaria is a Senior Research Leader, and a Global RAND Scholar for Pandemic Preparedness, working on emerging technologies and their intersections, such as AI, neurotechnology and synthetic biology. Her work focusses on assessing the societal and biosecurity implications of technological advancement and broader systemic risk and benefits. Her work looks at unpacking the factors affecting technology demand and supply, assessing oversight mechanisms for technology, and building resilience and preparedness in society. She holds a PhD in molecular and neurobiology from King's College London.



Dr Yasmin Afina

Researcher, Security and Technology Programme, UNIDIR

Dr Yasmin Afina is a Researcher for the Security and Technology Programme at UNIDIR, where her research covers the intersection between international security, international law and artificial intelligence. Her past research experience and interests cover nuclear weapons policy, outer space security, and wider international security and policy issues surrounding emerging technologies, including neurotechnology, quantum technologies, and cyber. Yasmin holds a PhD in international law and an LL.B. from the University of Essex. She also holds an LLM from the Geneva Academy of International Humanitarian Law and Human Rights, as well as a French Bachelor of Laws and Postgraduate degree (Maîtrise) in International Law from the Université Toulouse I Capitole.



Federico Mantellassi

Researcher, Security and Technology Programme, UNIDIR

Federico is a Researcher in the Security and Technology Programme at UNIDIR. His work focuses on the international security implications, risks and opportunities of emerging science and technology developments and innovations. Previously, Federico was a Research and Project Officer at the Geneva Centre for Security Policy, conducting research on the intersection between emerging technologies, international security and warfare. He holds a Master's Degree in Intelligence and International Security from King's College London and a Bachelor's Degree in International Studies from the University of Leiden.



**Dr Adedeji Ebo**

Director and Deputy to the High Representative, United Nations Office for Disarmament Affairs

Mr Adedeji (Ade) Ebo is currently Director and Deputy to the High Representative, UN Office for Disarmament Affairs (UNODA). He was previously Chief of the Conventional Arms Branch, UNODA. He was the pioneer Chief of the Security Sector Reform (SSR) Unit in the Office of Rule of Law and Security Institutions from 2008 to March 2020 when he initially joined UNODA. Ade has also served as the Director of Political Affairs in the UN Office for West Africa and Sahel (UNOWAS) from 2017-2019; and Director of Political Affairs, UN Operation in Côte d'Ivoire (2015-2016); Ade is also a Visiting Professor at the School of Global Affairs, Kings College, University London. His latest publication is *The United Nations and Security Sector Reform: Policy and Practice* (co-edited with Prof Heiner Hanggi), Lit Verlag, 2020. Prior to joining the UN, Ebo was a Senior Fellow and founding Head of the Africa Programme at the Geneva Centre for Security Sector Governance (DCAF 2003-2008), and an Associate Professor and Head of Department of Political Science & Defense Studies at the Nigerian Defense Academy (up till 2003).

**Professor Marilyne Andersen**

Director General, Geneva Science and Diplomacy Anticipator

Trained as a physicist, Marilyne Andersen has been conducting pioneering work at the interface between science and engineering, design, society and culture. A leading expert in the field of daylight in relation to neuroscience and psychophysics, Full Professor and Head of the LIPID lab at EPFL, she has been Dean of the School of Architecture, Civil and Environmental Engineering (ENAC) from 2013 and 2018 and carried the development of the EPFL Fribourg associate campus (Smart Living Lab). She initiated and led from 2022 until 2025 a Swiss-wide research consortium on the energy transition with a focus on the future of living and working, involving 10 academic institutions and 30 partners from the public and private sectors.





H.E. Claudia Fuentes-Julio

Ambassador and Permanent Representative of Chile to the United Nations and other International Organizations in Geneva

Ambassador Fuentes Julio has been Chair of the Governing Body of the International Labor Organization (ILO) from June 2022 to June 2023. Since July 2023, she is Chair of the Global Partnership against Child Labour, Forced Labour, Human Trafficking, and Modern Slavery known as Alliance 8.7. Her professional experience focuses on the promotion and protection of human rights and human security. As an academic, she has written extensively on foreign policy, human rights, the responsibility to protect, gender and diplomacy, and conflict resolution. She has taught at the Department of Peace Studies at Chapman University in California, USA, the International Relations Institute (IRI) at the Pontifical Catholic University of Rio de Janeiro (PUC-Rio), Brazil, and the Department of Government at Alberto Hurtado University in Chile.



Dr Giacomo Persi Paoli

Head of Security and Technology Programme, UNIDIR

Dr Giacomo Persi Paoli is the Head of the Security and Technology Programme at the United Nations Institute for Disarmament Research (UNIDIR). With over two decades of experience, he specializes in the implications of emerging technologies – particularly artificial intelligence and cyber – on international peace and security. His recent work focuses on the governance of these transformative technologies, including their impact on arms control, strategic stability and global security frameworks. Dr Persi Paoli holds prominent advisory roles in shaping the governance of emerging technologies. He is a member of the Expert Advisory Group of the Global Commission on Responsible AI in the Military Domain and serves as Co-Chair of the Think7 Task Force on Transformative Technologies: AI and Quantum, leading global policy discussions on the responsible development and application of these innovations.

