



UN Interagency Task Team on Science, Technology and Innovation
for the Sustainable Development Goals (IATT)

MultiStakeholder Forum on Science, Technology and Innovation for the Sustainable Development Goals (STI Forum)

United Nations Headquarters, New York, 9-10 May 2024

Virtual Side Event Session, 10 May 2024

8:30 to 10:00 EDST (New York time), 12:30 to 14:00 UTC; 14:30 to 16:00 CEST (Brussels time)

[Zoom Registration Link](#)

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Session Title

Developing a global approach for science policy with local impact for the development of digital tools in research assessment

Session Organizer

Coalition for Advancing Research Assessment (CoARA)’s Working Group on Ethics and Research Integrity Policy in Responsible Research Assessment for Data and Artificial Intelligence (ERIP)

Short one-line description

This session discusses developing global science policies with local impact, focusing on digital tools, data, and AI ethics to improve how contributions to science and society are valued and assessed.

Agenda

Time	Topic	Speaker
08:30	Welcome and introduction to the session	Professor Perihan Elif Ekmekci Co-chair, CoARA-ERIP Faculty of Medicine, TOBB University of Economics and Technology, Ankara, Turkey Member, AI Working Group, The Council on Higher Education of Turkey

8:35	The impact of the global digital transformation on science	Professor Emma Ruttkamp-Bloem Department of Philosophy Faculty of Humanities University of Pretoria, South Africa Chairperson, Bureau of the UNESCO Ad Hoc Expert Group (AHEG) on the Ethics of AI Member, UN Secretary General's High Level Advisory Body on AI
8:45	The scientific need for reforming research evaluation through ethics and integrity	Dr. Isidoros Karatzas Head, Research Ethics and Integrity Sector European Commission DG RTG ERIS Brussels, Belgium
8:55	Science communication, science policy, and the need to reform research evaluation to meet the SDGs	Dr. Lidia Borrell-Damián Member, CoARA Steering Board Secretary General, Science Europe Brussels, Belgium
9:05	A multi-disciplinary approach to the use of AI in science for addressing the UN Sustainable Development Goals (SDGs)	Dr. Gitanjali Yadav Co-chair, CoARA-ERIP National Institute of Plant Genome Research (NIPGR), New Delhi, India Lecturer, St. Edmunds College University of Cambridge
9:15	Reforming research evaluation in the digital sciences to meet local community needs	Dr. Serge Stinckwich Head of Research United Nations University Institute and the UNU AI Network, Macau
9:25	The young scientist's contribution to a sustainable world through research evaluation reform	Dr. Pil Maria Saugmann Co-chair, CoARA-ERIP The European Council for Doctoral Candidates and Junior Researchers (EuroDoc) Brussels, Belgium
9:35	Discussion and Summary	Mr. Francis P. Crawley Co-chair & Coordinator, CoARA-ERIP
9:45	Close of the session	

Session Abstract

This session addresses the impact of data and Artificial Intelligence technologies on science policy as it relates to science integrity, reliable science communication, and education. It focuses on cross-disciplinary solutions needed to implement the SDGs within the context of the transformative technologies for better science-policy-society interfaces. It addresses the UN 2024 STI Forum theme of 'Rapidly emerging frontier technologies and emerging science issues and sustainable development' by demonstrating the contribution of a revised policy approach to science and its assessment in our digital societies.

The session examines the need for a transformation in how we value science and measure its contribution to research, education, and society generally, particularly in the framework of advancing the 2030 SDGs. It is organised by the Coalition for the Advancement of Research

Assessment (CoARA)'s Working Group on Ethics and Research Integrity Policy in Responsible Research Assessment for Data and Artificial Intelligence (ERIP) promoted by the European Commission, ALLEA, and leading European and international research institutions for advancing the interface between science, policy, and major societal challenges.

The interactive discussion will focus on the governance outputs and relates them to the need for the integration of research ethics and research integrity into digital tools for the establishment of policy and governance in the evaluation of scientific research. Three key trajectories are presented regarding the implementation of machine learning methods and artificial intelligence models for expanding traditional understandings of participation in, and contributions to, scientific outputs and communication:

1. methods and tools to ensure the research ethics and integrity of scientific methods and outputs with the advancing use of data and the impact of AI [questions of research ethics and research integrity];
2. methods and tools to evaluate digital contributions to science/knowledge in research programs and assessment procedures [questions of how to value digital contributions to knowledge]; and
3. innovative methodologies for employing data ecosystems and AI models for research assessment in digital environments with a focus on open science infrastructures [questions of how to assess in this new digital research environment].

The work demonstrates how data and AI governance, policy, and guidance can be integrated into digital tools for advancing research assessment that promote the role of, and define the ethical and integrity characteristics of, a responsible culture for the assessment of data and AI in research, fostering responsibility, transparency, and societal benefit in the face of societal challenges. The session is an opportunity for a global discussion on the relationship between research assessment policy and data and AI tools in evaluating the contributions of science, science policy, and science communication to the academic and research communities as well as society as a whole.

The discussion is expected to be preparatory for eventual contributions to the High-level Political Forum (HLPF) in New York on 18-17 July 2024, having particular relevant to the HLPF 2024 theme: 'Reinforcing the 2030 Agenda and eradicating poverty in times of multiple crises: the effective delivery of sustainable, resilient and innovative solutions'. Through this session we will contribute to developing effective strategies for valuing the impact of data and AI on poverty in frameworks of crises. The side event also helps to prepare contributions to the UN Summit of the Future in New York on 22-23 September 2024 regarding the development of the 'Pact for the Future' and its foreseen action oriented in the 'how' of cooperation towards better preparation for the world and the international system to manage current and future challenges for the sake of all humanity and future generations. This CoARA-ERIP approach to science policy is action oriented and focused on the local impact of digital tools in science for societal outcomes.

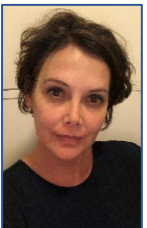
Expert Biographies

Professor Perihan Elif Ekmekci, Co-chair, CoARA-ERIP; Faculty of Medicine, TOBB University of Economics and Technology, Ankara, Turkey; Member, AI Working Group, The Council on Higher Education of Turkey



Perihan Elif EKMEKCI was born in Ankara in 1971. After she completed her education at TED Ankara College, she graduated from the Medical Faculty of Ankara University in 1995. She has her Ph.D. in History of Medicine and Ethics from Ankara University in 2014. Currently, she is an associate professor and head of the History of Medicine and Ethics department at TOBB ETU School of Medicine. She was a research fellow at Imperial College, London, the UK in 2006. She has been a Fogarty Fellow at Harvard University and had her Fogarty/NIH Program Master's Certification in Research Ethics in 2014. She has been a fellow of WIRB International IRB Western Institutional Review Board Research Ethics Training Program, Seattle Washington (USA) in 2016. She served as the head of the EU relations department of the Ministry of Health Turkey (2007-2016) and developed several projects in alliance with the EU. She was the Turkish representative for the European Center for Disease Control Advisory Board and served in this position between the years 2011-2016. Currently, she is the chair of the International Unit in Bioethics/ WMA Cooperation Center and deputy dean of TOBB ETU School of Medicine. She is chairing the Intuitional Review Board of TOBB ETU, and she is a member of the open science committee of TOBB ETU. She is a member of the World Association for Medical Law and the International Forum of Teachers of the International Unit in Bioethics. She has several publications in distinguished journals on ethics and the history of medicine. Professor Ekmekci is the co-author of the book titled *Artificial intelligence and Bioethics* published by Springer in 2020. She is teaching undergraduate and postgraduate courses on the history of medicine and ethics.

Professor Emma Ruttkamp-Bloem, Department of Philosophy, Faculty of Humanities, University of Pretoria, South Africa; Chairperson, Bureau of the UNESCO Ad Hoc Expert Group (AHEG) on the Ethics of AI; Member, UN Secretary General's High Level Advisory Body on AI



Emma Ruttkamp-Bloem is professor and head of the Department of Philosophy, Faculty of Humanities at the University of Pretoria. She is the leader of the ethics of artificial intelligence research group at the Centre for Artificial Intelligence Research (CAIR) in South Africa. In her capacity as an AI ethics policy researcher, Prof Ruttkamp-Bloem is a member of the AUDA-NEPAD Consultative Roundtable on Ethics in Africa and a current member of the UNESCO World Commission for Ethics of Scientific Knowledge and Technology (COMEST). She was the chairperson of the Bureau of the UNESCO Ad Hoc Expert Group (AHEG) on the ethics of artificial intelligence tasked to prepare a recommendation for a global instrument on the ethics of AI by September 2020. She is a member of the advisory board of the Wallenberg AI, Autonomous Systems and Software Program (Human Sciences) in Sweden and of the advisory board of the Global AI Ethics Institute. Prof Ruttkamp-Bloem is a corresponding member of the International Academy for the Philosophy of Science. She has been the elected South African representative at the International Union of the History and Philosophy of Science and Technology (IUHPST) since 2014. She is a member of the editorial board of Springer's respected Synthese Library Book Series and the editorial board of Acta Baltica: Historiae et Philosophiae Scientiarum, an open access journal on the history and philosophy of natural and social sciences, published by the Baltic Association of the History and Philosophy of Science. She has a PhD in Philosophy in

the domains of mathematical logic and the philosophy of science. Her thesis focused on formulating a realist analysis of the structure of scientific theories with the help of mathematical model theory. Currently, her research focuses on the ethics of artificial intelligence and issues in the intersection between the scientific realism debate and the debate on the structure of scientific theories in the philosophy of science. In the ethics of artificial intelligence, she works on themes in the philosophy of technology relating to human-technology relations, and themes in machine ethics, the ethics of social robotics, and data ethics. In the context of policy making, her research focuses on generating culturally sensitive policies for trustworthy AI technologies while aiming for global regulation. In the philosophy of science, her work is centred on debates in scientific realism, the structure of scientific theories, and the status of machine learning-based methodologies in the discovery/justification debate in the philosophy of science. Her research in both the ethics of artificial intelligence and the philosophy of science includes application of non-classical logics to selected problems in these sub-disciplines of philosophy.

Dr. Isidoros Karatzas, Head, Research Ethics and Integrity Sector, European Commission, DG RTG ERIS, Brussels, Belgium



Head of the Ethics and Research Integrity Sector, European Commission, DG Research & Innovation, Biochemist and Psychologist by training. He has been a "Science" Programme Research Fellow (precursor to the Marie Curie Programme). After joining the European Commission, he was responsible for the evaluation of the Framework Programmes where he set up the European Network on RTD Evaluation. Consequently, he managed the risk governance research file and was the scientific secretary of the European Research Advisory Board (EURAB), a Commission high-level advisory body dealing with research policy and priorities. Currently, he is the head of the Ethics and Research Integrity Sector in DG Research and Innovation. As head of the sector, he established the self-assessment and ethics advisors methodology as well as advanced training courses on research ethics and research integrity for Commission staff, the research ethics experts community, early career researchers and for national and European professional associations. He has set up the first European system of ethics audits and checks and has led the efforts to produce specific guidelines on ethics in research. With his team initiated the efforts to update and publish the new European Code of Conduct for Research Integrity and prepared and implemented the Horizon 2020 and Horizon Europe research ethics appraisal process.

Dr. Lidia Borrell-Damián, Member, CoARA Steering Board, Secretary General, Science Europe, Brussels, Belgium



Lidia Borrell-Damián is Secretary General of Science Europe, the association representing national public organisations that fund and perform research in Europe. She holds overall responsibility for the organisation's strategic development and implementation of action plans. Her areas of experience cover a wide range of Research and Innovation (R&I) priorities, namely EU Framework Programme; European Research Area; research infrastructures; research ethics and integrity; research assessment processes; university-business cooperation; regional innovation; gender and diversity; Open Science; doctoral education; energy science policy. She holds a Doctorate in Chemistry (Chemical Engineering Specialty; Solar Energy) from the University of Barcelona (1995). She worked at the European University Association (EUA) during 2006-2019, serving the last five years as the Director for R&I. She was Director of Research at Universitat Pompeu Fabra, (Barcelona, Spain, 2003-2005). Formerly, she was a Visiting Scholar at the University of Western Ontario (London, Canada, 1999-2001) and at North

Carolina State University (Raleigh, USA, 1997-1998). She was an Assistant Professor at the University of Barcelona from 1990-1998.

Dr. Gitanjali Yadav, Co-chair, CoARA-ERIP, National Institute of Plant Genome Research (NIPGR), New Delhi, India; Lecturer, St. Edmunds College, University of Cambridge



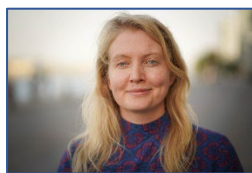
Gita is a Group Leader at NIPGR New Delhi, the co-founder of #SemanticClimate, and a Trustee of St Edmund's College, University of Cambridge. She is an expert in Genomics and Artificial Intelligence with applications in Food security and Biodiversity Informatics. She has also worked with the UKHSA-NVAP Program to train Public Health Officers in the WHO-European region for Genomic Surveillance of SARS-Cov2. As an advisory board member of several City Knowledge Clusters set up by the Govt of India, she is an Ambassador for Women in Science and strongly advocates the use and adoption of Open Science. Dr. Yadav has been recognised for her work globally, including the Hamied Fellowship Award by the University of Cambridge, Exceptional Talent Award from the Royal Society of London, INSA Medal & IYBA Award by the Government of India, and the SASTRA-Obaid Siddiqi Life Science Award.

Dr. Serge Stinckwich, Head of Research, United Nations University Institute and the UNU AI Network, Macau



Serge Stinckwich is a computer scientist and the Head of Research at the United Nations University Institute in Macau. Before joining UNU, he was an Associate Professor at the University of Caen Normandie (France) and a researcher in the UMMISCO international joint research unit of IRD (French Research Institute on Sustainable Development) Sorbonne University. Over the years, Serge developed an innovative research program about modelling and simulation of complex systems at the intersection of several scientific disciplines applied to developing countries' issues. His research interests are domain-specific languages and tools that ease the tasks of non-computer experts to model, simulate and analyse complex systems. He has applied his work to Epidemiology, Environmental Monitoring and Disaster Management. From 2008 to 2012, he worked in Hanoi, Vietnam, on the AROUND (Autonomous Robots for Observation of Urban Networks) programme, which deals with deploying simple mobile autonomous sensors during disasters in the context of southern countries. He has also been an invited Professor at Kyoto University to work with Japanese experts on Rescue Robotics. In 2017, he was based in Cameroon. With colleagues from the University of Yaoundé, he worked on Complex System modelling and Artificial Intelligence applied to applications like epidemiological surveillance and environmental monitoring in collaboration with IRD and CIRAD research institutes. From 2018 to 2018, Serge was the Principal Investigator of GDRI Sense-South, an international research network of teams from Senegal, Cameroon, Vietnam and France working on "Innovative Sensors and IoT Telecommunication Networks for Environmental Surveillance in Southern Countries". Sense-south funds actions like the "Smart Clean Garden" project to control the water purification in soils and the sustainable city project of Douala (Cameroon) with a local climate change observatory. He organised and co-organized more than 50 workshops and conferences on topics such as Software Engineering, Modelling and Simulation, Rescue Robotics, Disaster Management, and Complex Systems, ... and supervised more than 20 PhD/Masters students from various countries (Chile, Vietnam, Cameroon, Senegal, etc.).

Dr. Pil Maria Saugmann, Co-chair, CoARA-ERIP, The European Council for Doctoral Candidates and Junior Researchers (EuroDoc), Brussels, Belgium



Dr. Pil Maria Saugmann is a physicist with a keen interest in the role of research and education in society. She holds a PhD degree in theoretical physics from Stockholm University. Her research focused on condensed matter physics, specifically studying different lattice systems that could serve as routes to realizing quantum simulators. Her thesis, titled “A Quantum for a Quantum - or ways to realize exotic lattice systems,” can be found on DiVA. Beyond theoretical physics, Dr. Saugmann is passionate about issues related to diversity and equal opportunity, theory of science, citizen science, research communication, digitalization of society, and conditions for research, researchers, and research education. She has been actively involved in representational work in various organizations, including chairing the national doctoral committee in Sweden (SFS-DK) and serving as Vice-president of the European Council of Doctoral Candidates and Junior Researchers (Eurodoc). Eurodoc is an organization that advocates for the rights and interests of early-career researchers across Europe. Dr. Saugmann’s contributions include statements on Open Science and efforts to improve employment conditions for early career researchers.

Mr. Francis P. Crawley, Co-chair & Coordinator, CoARA-ERIP; Chair, CODATA International Data Policy Committee (IDPC); Leuven, Belgium



Francis P. Crawley chairs the International Data Policy Committee of the International Committee on Data (CODATA), International Science Council (ISC). He is a philosopher specialized in research ethics, integrity, and methodology, and data/AI ethics & law. He is the Executive Director of the Good Clinical Practice Alliance – Europe (GCPA) and the Strategic Initiative for Developing Capacity in Ethical Review (SIDCER) in Leuven, Belgium. He coordinated the GCPA-SIDCER European Fellowship in Research Ethics (EFRE). He is Chairman of the EOSC Future / RDA Artificial Intelligence and Data Visitation Working Group & EOSC Future / RDA Ambassador for Ethics & Law.

Theme addressed

Track 1: Theme Rapidly emerging frontier technologies and emerging science issues and sustainable development

Here we look for science-policy briefs on rapidly emerging science and technologies that progress so fast and have such broad-ranging socio-economic and environmental impacts that they pose serious challenges for societies and institutions to adapt. Examples include - but are not necessarily limited to - highly interdependent, emerging technology clusters in the areas of automation, robotics, artificial intelligence, biotechnology, nanomaterials, and various digital technologies. We encourage you to report on your scientific and technological findings and propose policy action.

Nb: Our contribution also has relevance for Tracks 2, 3, and 5.

Event ID

V-19

Submission contact

Francis P. Crawley (on behalf of CoARA-ERIP): fpc@gcpalliance.org