Provisional programme

Emerging technologies and the Nuclear Nonproliferation Treaty

Monday 26 - Wednesday 28 September 2022 | WP3091

To be held at Wilton Park, Wiston House, Steyning, West Sussex

The impact of emerging technologies has assumed greater saliency in recent years, but their implications for nuclear risk and the global nuclear order remain contested and uncertain. Applications of some technologies could have the potential to exacerbate nuclear risks. There may also be ways to leverage these technologies in support of non-proliferation, disarmament, and arms control efforts.

This Wilton Park conference seeks to initiate an international dialogue to better understand the role of emerging technology and nuclear risk. In particular, it seeks to:

- Develop understanding and awareness of the roles that emerging technologies play in the global nuclear order.

- Identify risks and opportunities associated with emerging technologies and the implications for crisis stability, arms control, and the NPT.

- Bridge gaps in thinking between policy and technical communities.

- Define a forward-looking agenda for emerging technology within the NPT.

In partnership with the Stanley Center for Peace and Security
In partnership with King's College London with support from the MacArthur Foundation
(Speakers invited and themes proposed * denotes to be confirmed)

Monday 26 September

1300	Participants arrive and buffet lunch available
1430-1445	**Welcome and introduction**

Mark Smith
Senior Programme Director, Wilton Park

Luisa Kenausis
Nuclear Weapons Program Associate, Stanley Center for Peace and Security

Heather Williams
Director, Project on Nuclear Issues; Senior Fellow, International Security Programme, Centre for Strategic and International Studies (CSIS)

1445-1615	### 1. Setting the Scene This session aims to establish objectives for the conference. The discussion will cover: - What do we think of when we think of "emerging technologies"? - How did states channel discussions on emerging technologies during the 10th NPT Review Conference? - Looking back at the 10th Review Conference, what lessons can be drawn for planning future international discussion on emerging technologies and nuclear weapons? - Today, where are we seeing the most constructive conversations on emerging technology and nuclear policy? **Ulrich Kühn** Program Director, Institute for Peace Research and Security Policy Hamburg (IFSH) **Heather Williams** Director, Project on Nuclear Issues; Senior Fellow, International Security Programme, Centre for Strategic and International Studies (CSIS) **Edward Read** Head, Nuclear Policy and Arms Control, Ministry of Defence
1615-1700	Photograph followed by tea/coffee
1700-1830	### 2. Technologies of Concern "Emerging technology" is often discussed in the abstract or as a collection of very diverse technologies. The goal of this panel is to introduce non-technical audiences and participants to three specific technologies of concern for strategic stability and their applications (AI, biotech and engineering, cyber). The discussion will cover: - How has this technology evolved over the past decade, and what are expectations for its evolution in the next decade? - What are applications of this technology with potential military and strategic implications? **AI** **Lauren Kahn** Research Fellow, Council on Foreign Relations (CFR) **Biotech and engineering** **Piers Millett** Vice President for Responsibility, iGEM Foundation **Cyber** **Beyza Unal** Head, Science and Technology Unit, United Nations Office for Disarmament Affairs (UNODA)
1900	Reception followed by dinner

Tuesday 27 September

0800-0900	Breakfast
0915-1100	### 3. Emerging Technologies and Crisis instability - Which technologies are the most concerning for crisis stability? What are their unique traits?

- How, and to what extent, are emerging technologies such as cyber, space, artificial intelligence, and machine learning affecting crisis stability among nuclear possessors?
- What roles can emerging technologies play in reducing nuclear risk?
- How can policymakers and technical experts interact to better understand the implications of emerging technology on strategic stability?

Erik Lin-Greenberg
Assistant Professor, Department of Political Science, Massachusetts Institute of Technology (MIT)

James Acton
Co-director, Nuclear Policy Program, Carnegie Endowment for International Peace

Marina Favaro
Research Fellow, Institute for Peace Research and Security Policy Hamburg (IFSH)

1100-1130	Tea/coffee

1130-1300	## 4. Emerging Technologies and Non-Proliferation

- What challenges and opportunities do emerging technologies present to global non-proliferation efforts?
- How can the challenges be mitigated? How can the opportunities be capitalised on?
- Will strategic asymmetries undermine extended nuclear deterrence and lead to new nuclear actors in Europe or Asia?

Tristan Volpe
Assistant Professor, Naval Postgraduate School

Jane Vaynman
Senior Advisor, Bureau of Arms Control, Verification and Compliance, US Department of State

1300-1400	Lunch

1400-1500	Free time or optional garden tour

1500-1630	## 5. Emerging Technologies and Arms Control

- How might emerging technology impact the future of arms control?
- To what extent does emerging technology enable or undermine current and future arms control efforts?
- What are the prospects of including emerging technologies in future arms control arrangements? What factors impact these prospects?

Andrey Baklitskiy
Senior Researcher, United Nations Institute for Disarmament Research (UNIDIR)

Rose Gottemoeller
Steven C. Házy Lecturer; Research Fellow, Hoover Institution; Center for International Security and Cooperation, Stanford University

1630-1700	Tea/coffee

1700-1830	## 6. Emerging Technologies and Disarmament

- How might emerging technology impact prospects for nuclear disarmament from the perspective of nuclear possessors and non-possessors?
- How can emerging technology be leveraged to supplement current and future disarmament efforts?

Reto Wollenmann
Deputy Head, Arms Control, Disarmament and Non-proliferation Section, Division for Security Policy, Swiss Federal Department of Foreign Affairs (FDFA)

Marion Messmer
Senior Research Fellow, Chatham House

1900 — Reception followed by dinner

Wednesday 28 September

0800-0900 — Breakfast and checkout (key cards will not work after 0900)

0915-1045

7. Looking Forward: Emerging Technologies and the P5 Process

- How could the P5 incorporate emerging technology dialogues into the P5 Process?
- What challenges will the P5 confront in initiating this dialogue?
- How can they be overcome or mitigated?

Shatabhisha Shetty
Executive Director, Asia Pacific Leadership Network (APLN)

Tong Zhao
Senior Fellow, Carnegie Endowment for International Peace

1045-1115 — Tea/coffee

1115-1125

Evaluation survey

Completion of online survey

1125-1300

8. Closing Session: Emerging Technologies and Bridge-Building

- Should a dialogue on emerging technology be incorporated into the NPT? If so, how?
- To what extent can a dialogue on emerging technology improve prospects for cooperation and bridge-building between nuclear possessors and non-possessors?
- What role can civil society play?

HE Gustavo Zlauvinen (joining virtually)
President, Tenth NPT Review Conference; Ambassador, Ministry of Foreign Affairs, Argentina

Mareena Robinson Snowden
Senior Advisor, U.S. Department of State; Senior Engineer, National Security Analysis Department, Johns Hopkins Applied Physics Laboratory

1300 — Lunch

1400 — Participants depart

This is a preview programme and as such may be subject to change.

This is an invitation only conference.

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