



EUROPEAN
LEADERSHIP
NETWORK



NEW
EUROPEAN
VOICES ON
EXISTENTIAL
RISK

How to save the world:

Influencing policy on the biggest
risks to humanity

A POLICY HANDBOOK FROM THE NEVER NETWORK

About the NEVER project

The New European Voices on Existential Risk (NEVER) project aims to attract, nurture, and sustain new talent and ideas from wider Europe on nuclear issues, climate change, biosecurity, and emerging disruptive technologies (EDTs), and to connect this talent pipeline with wider communities working on existential risks facing humanity.

It was established with two years of funding from MacArthur Foundation as part of their capstone funding to conclude their multi-year investment in research and action on nuclear issues.

The project's approach is to encourage people working in different areas of existential risk to cross-fertilise ideas and learn from each other's experience in leading change on vital, but difficult, global challenges, despite fatigue and fatalism.

This handbook is designed to offer recommendations on how this could be done.

More information can be found here: europeanleadershipnetwork.org/new-european-voices-on-existential-risk/

About the European Leadership Network

The NEVER network is convened by the European Leadership Network (ELN), an independent, non-partisan, pan-European network of over 450 past, present and future European leaders working to provide practical real-world solutions to political

and security challenges, and, above all, to reduce the risks of catastrophic conflict such as a nuclear war.

We operate as a charity registered in England and Wales under Registered Charity Number 1208594.

About the authors

The lead author is Jane Kinninmont, Policy and Impact Director of the ELN, with contributions from NEVER members including Nicolò Miotto, Arthur Duforest, Ezgi Yazicioglu, Jieqiong Duan, Rebecca Donaldson, Valeriia Hesse, Jasper Goetting and Emil Nafis Iftekhar. The report was edited by Edan Simpson.

Executive summary

The report flags four major areas of existential or catastrophic risk to humanity and the planet: nuclear weapons, climate change, biological threats, and the adverse impacts of disruptive technologies. It emphasises the interconnected nature of these risks and advocates for cross-cutting lessons to be drawn.

The systemic nature of the risks suggests that a comprehensive and systemic international approach should be taken to address them. Yet the current

international environment is often instead characterised by competition, fragmentation and a degree of conflict. This should not preclude positive action, or efforts to push for concerted international cooperation wherever possible, by building innovative international coalitions that will keep pushing governments to act. Solutions will need to be found despite great-power competition. The need to address existential risks in a world of multiple geopolitical antagonisms will require radical collaboration across difference and division.

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This chapter introduces the idea of existential or catastrophic risks – those that threaten the survival of humanity and the planet. The specific risks we focus on are:

- Nuclear catastrophe: *The risk of nuclear war*
- Climate change: *Environmental destabilisation and ecological threats*
- Emerging technologies: *Risks from AI and other disruptive technologies*
- Biological threats: *Both manmade and natural*

Chapter 2: The existential risk to-do list 28

This chapter outlines specific targets that have been set to mitigate existential risks, including:

- Climate change: *The 2015 Paris Agreement*
- Nuclear weapons: *The Non-Proliferation Treaty and other arms control agreements*
- Biological threat reduction: *The Biological Weapons Convention*

Chapter 3: What are the blockers? 40

The chapter identifies five major blockers to addressing existential risks:

- Geopolitical competition: *States are often unwilling to cooperate due to competitive interests*
- Vested interests' resistance: *Resistance from entities that benefit from current systems*
- Short-termism: *Immediate crises overshadow long-term risks*
- Bureaucratic limitations: *Existing bureaucracies are ill-equipped to handle systemic issues*
- Denial and disinformation: *Public resistance due to misinformation and a lack of awareness*

Chapter 4: How to fix it 52

To overcome these challenges, the handbook proposes several solutions encapsulated in the “6 Cs”:

- Concepts, ideas, and innovation: *Encourage new thinking and foresight in policy-making*
- Campaigning and communication: *Transform ideas into action and raise awareness*
- Collaboration and coalition-building: *Build partnerships across different sectors*
- Crafting institutions: *Embed solutions within governance structures*
- Changing calculations: *Modify economic and legal incentives to promote risk mitigation*
- Creating and harnessing technologies: *Utilise technology to address existential risks*

Further resources and project background 67

The handbook includes a list of resources and further readings for those interested in delving deeper into the topics discussed, alongside information on the NEVER network's members and initiatives.

Introduction

This report examines the biggest challenges facing humanity through the lens of a small but mighty project that has sought to identify solutions.

The central issues considered here are nuclear weapons, climate change, biological threats, and the potential adverse impacts of disruptive technologies. These threats interact with each other and could each have systemic and long-term effects on humanity and the planet.

Many argue that systemic change is needed: that new systems of governance and multilateral cooperation are needed for the world to handle systemic international challenges. They emphasise that such systemic change is particularly needed in the context of political and social change since key international governance institutions were established in the period immediately after the Second World War. As multilateralism is challenged and fragments, dynamics of competition and confrontation among major powers re-emerge, and significant scepticism about politicians and authority structures

strengthens, the need for such systemic change seems to grow.

Global challenges can themselves be seen as a reason for more organised and systematic cooperation. However, these challenges are multiplying at a time when significant parts of the public across national contexts are inclined to believe that the challenges are being fabricated to justify conspiratorial power grabs. Tackling disinformation and denial was a recurring theme in the NEVER discussions.

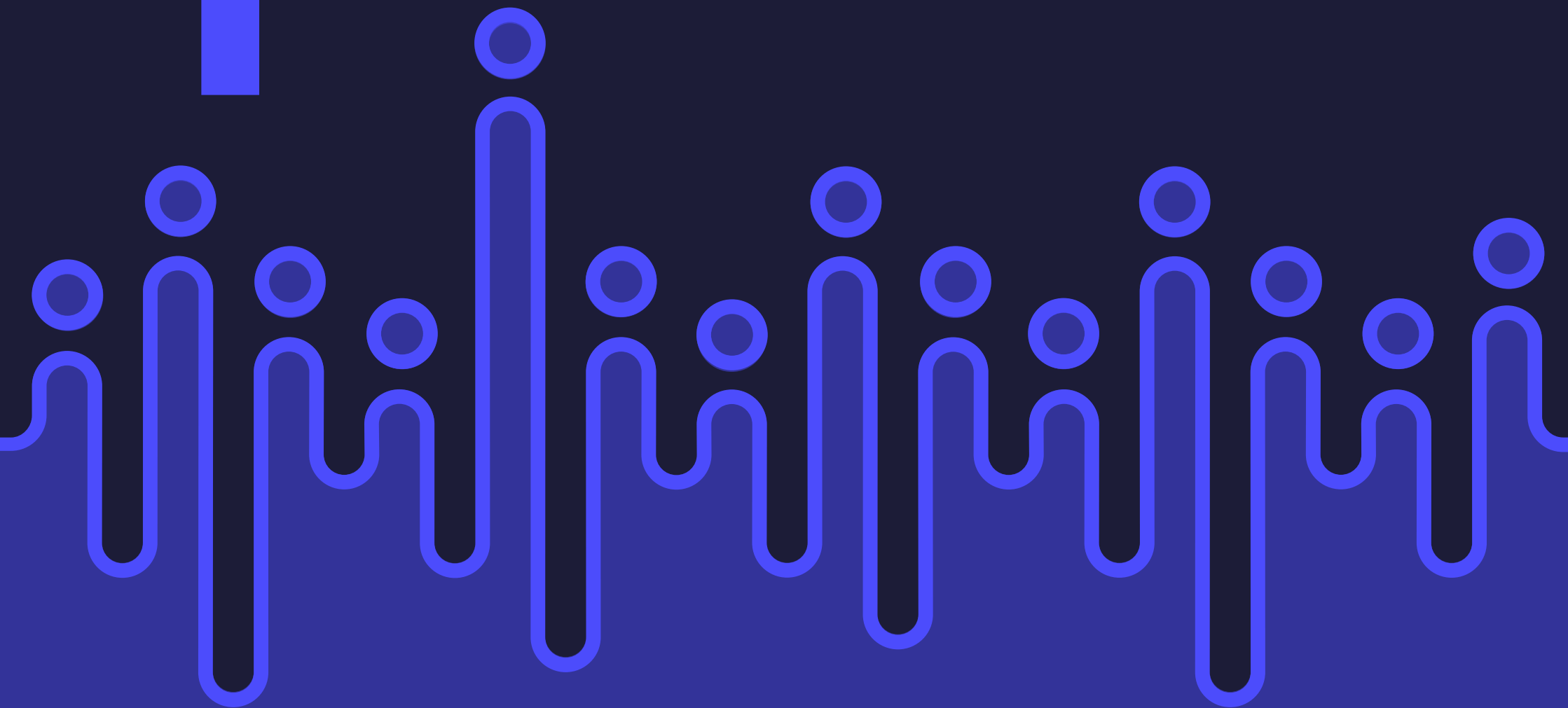
The diverse and active pool of young people who want to tackle existential risk therefore need to be thinking about ways to remake and activate systems of governance and diplomacy, and to incentivise effective leadership and human behaviour, as well as technological solutions and specific policy steps. Dialogue and networking between people from different sectors will be essential to develop these understandings and ideas.

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THE RISKS TO ALL OF US: MAN-MADE EXISTENTIAL RISK



Chapter 1. The risks to all of us: man-made existential risk

Over the past century, humans have managed to elevate technology beyond levels ever thought possible, even to the point where our own inventions have the power to destroy us. That doesn't necessarily mean our fate will be determined by technology, but it does mean that we need to harness those same powers of invention to safeguard humanity and the planet.

Existential risks are those risks that threaten humanity and the planet. These include risks which endanger humanity and those that have the potential to cause human or planetary extinction.

The overlapping idea of global catastrophic risk is defined by the NGO Global Shield as any major threat or combination of threats that will "inflict significant harm to human well-being on a global scale", such as severe climate change, pandemics, nuclear war and winter, catastrophic misuse of AI, or natural disasters¹.

The catastrophic risks posed by natural disasters have been well known for a long time. However, manmade existential risks to the planet go back just a few decades, to the development of nuclear weapons and the hydrogen bomb. This report focuses on manmade existential risk, taking the view that if humanity has been able to create these risks (whether by intention or accident), humans should also have sufficient ingenuity and energy to mitigate them.

1. Global Shield, Policy Brief: How governments can better understand global catastrophic risk, July 2024, p. 3. Available at: tinyurl.com/bm8k67r8

2. Derek Parfit, "Reasons and Persons", Oxford, GB: Oxford University Press (1984)

The four main issues covered by the NEVER network are:



1. NUCLEAR CATASTROPHE
most likely through nuclear war



2. CLIMATE CHANGE
environmental destabilisation and ecological threats



3. BIOLOGICAL THREATS
whether manmade or natural



4. RISKS EMERGING FROM AI
and other emerging and disruptive technologies

Existential risk experts have flagged a broader range of existential and catastrophic risks than the ones included in this paper, such as:

- **An asteroid hitting the earth.**
- **Geoengineering gone wrong.**
- **An irreversible decline in human fertility.**

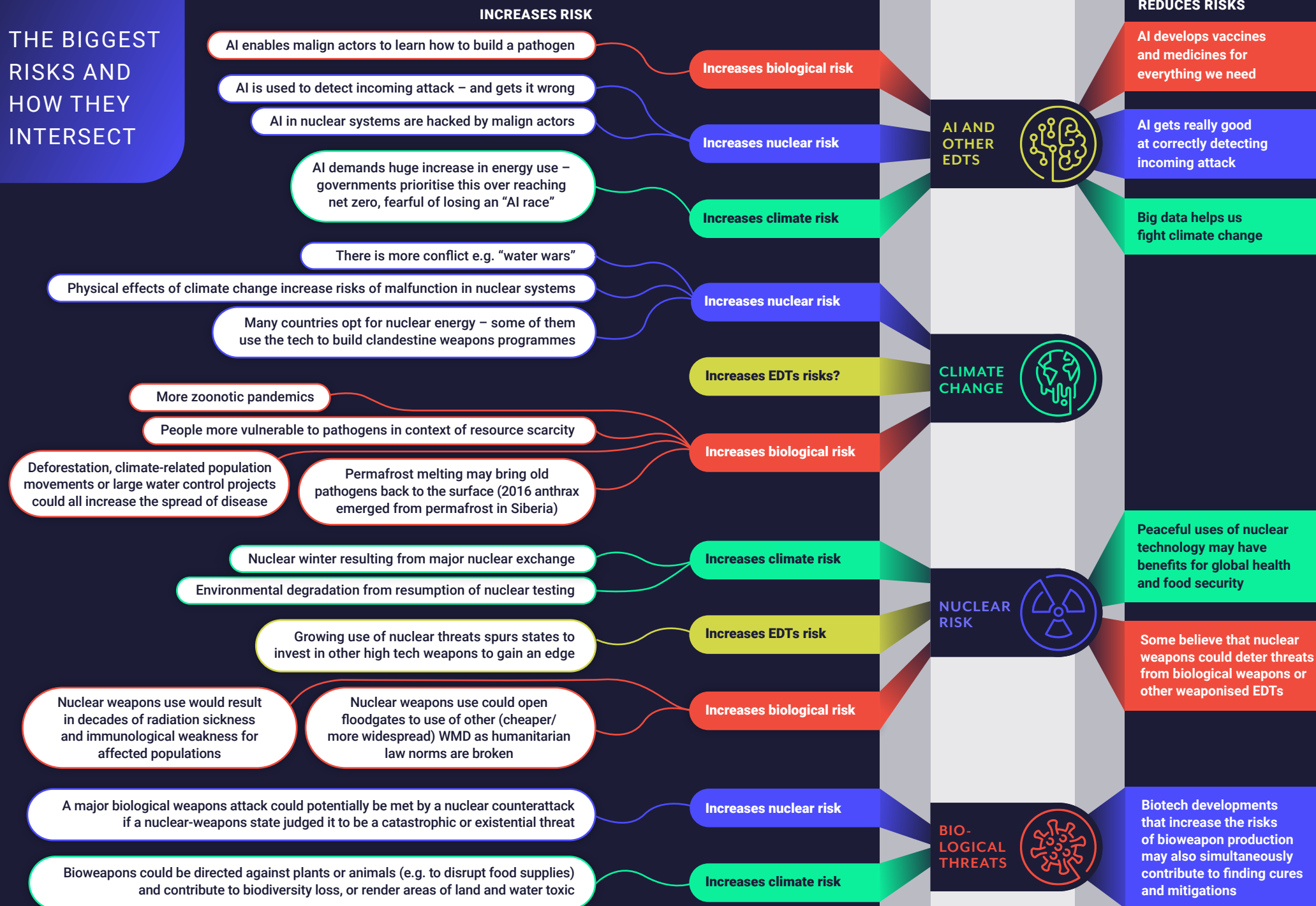
Some experts focus specifically on threats to humanity's survival; others would include the destruction of civilisation, for instance:

- **Societal collapse.**
- **Global totalitarian government.**

Some argue existential risk deserves more attention than catastrophic risk. According to an influential book by philosopher Derek Parfit,

an event that killed 100% of humans would be significantly worse than an event that killed 99% of humans because it would constitute extinction². However, it is practically impossible to predict exactly how bad different catastrophic scenarios could become, or what could tip a risk to becoming fully existential. Imaginations may naturally turn to apocalyptic scenarios that are in essence a "big bang" in reverse: a huge explosion or giant asteroid clash that would wipe out humanity in an instant. In practice, the collapse of humanity or the planet could be slower and could involve cascades of interconnected risks and second and third order effects – scenarios that are harder to imagine and visualise.

THE BIGGEST RISKS AND HOW THEY INTERSECT



We asked five of our NEVER members to explore the intersections between the different areas of risk. Their findings follow below.

Nuclear weapons and their knock-on effects on other risks



NICOLÒ MIOTTO
NEVER member

1. Global nuclear conflict

A full-scale nuclear war would lead to the death of hundreds of millions of people as well as disruption to vital infrastructure.

2. Nuclear winter

The use of atomic weapons would cause extensive wildfires and dust that, in turn, would prevent solar radiation from reaching the surface. This would lead to prolonged cooling over most of the globe. This existential risk intersects with climate risks.

3. Immunological risk

The radiation from nuclear explosions would create major immunological damage to survivors, exposing them to biological

infections, including pandemics and/or bioweapons. This existential risk intersects with biological risks.

4. Global collapse of society

A full-scale nuclear war would lead to societal collapse and the disruption of global, national, and local institutions.

5. Outer-space-related risks

The misuse of atomic weapons for asteroid deflection could cause the impact of several fragments hitting the Earth. This existential risk intersects with EDTs-related risks.

6. Nuclear use and knock-on effects on global food security

A 2022 study by Xia et al looked at how nuclear winter could affect food security, and suggested that a nuclear war between India and Pakistan could result in 2 billion deaths, while one between Russia and the US could result in 5 billion deaths.

Emerging technologies and existential risk



EZGI YAZICIOĞLU
NEVER member

Historical experiences show that the most significant threats and disasters, such as World Wars or pandemics, did not only have severe contemporary consequences, but eventually shaped how societies organise themselves and interact with each other in the future, thus making them more or less vulnerable to future events. For example, the end of World War II led to the creation of the United Nations and reorganised the world into two blocks, shaping economic cooperation, technological progress, and cultural evolution. As such, large disasters create critical junctures throughout history and create the trajectories within which smaller disasters manifest³.

1. Biotechnology

History shows that public health crisis such as the bubonic plagues in China and India in 1906, 1909, and 1920 can contribute to catastrophic threats. The risks from advances in biotechnologies, e.g. from vaccines,

have therefore often appeared small compared to their tremendous benefits. A key challenge in risk mitigation lies in the fact that risks are not immediately apparent, go undetected, or evaluations fail to consider the scale of potential harm. Even technologies developed and employed solely for medical interventions can pose concerns.

Advances in biotechnology allow the creation of pathogens that can combine the highest level of transmissibility, virulence, and global reach for catastrophic consequences. Although designed for human benefit, many research programmes pose reason for concern. In a state of political unrest or following the breakdown of bodies such as the Biological Weapons Convention, the strategic pressure to acquire bioweapons could increase. It is also important to underline biohackers' role, due to easily and cheaply available synthetic biology tools on online marketplaces. Progress has been made fairly continuously on upholding a strong taboo against bioweapons, but more needs to be done to regulate risky research conducted outside of the military sphere.

3. Stauffer et al., (2023), Existential Risk and Rapid Technological Change: Advancing Risk-informed Development, United Nations Office for Disaster Risk Reduction, tinyurl.com/u993fmr3, P.9

2. Quantum technologies & autonomous systems

Quantum computing, a revolutionary field of computing, utilises the principles of quantum mechanics to solve problems that are intractable for classical computers. They can, for instance, simulate molecular interactions with unprecedented accuracy, facilitating the design of new drugs, catalysts, and materials with desired properties. This can accelerate research and development, leading to faster and more efficient drug discovery processes.

However, alongside remarkable possibilities, there are burgeoning concerns about the possible

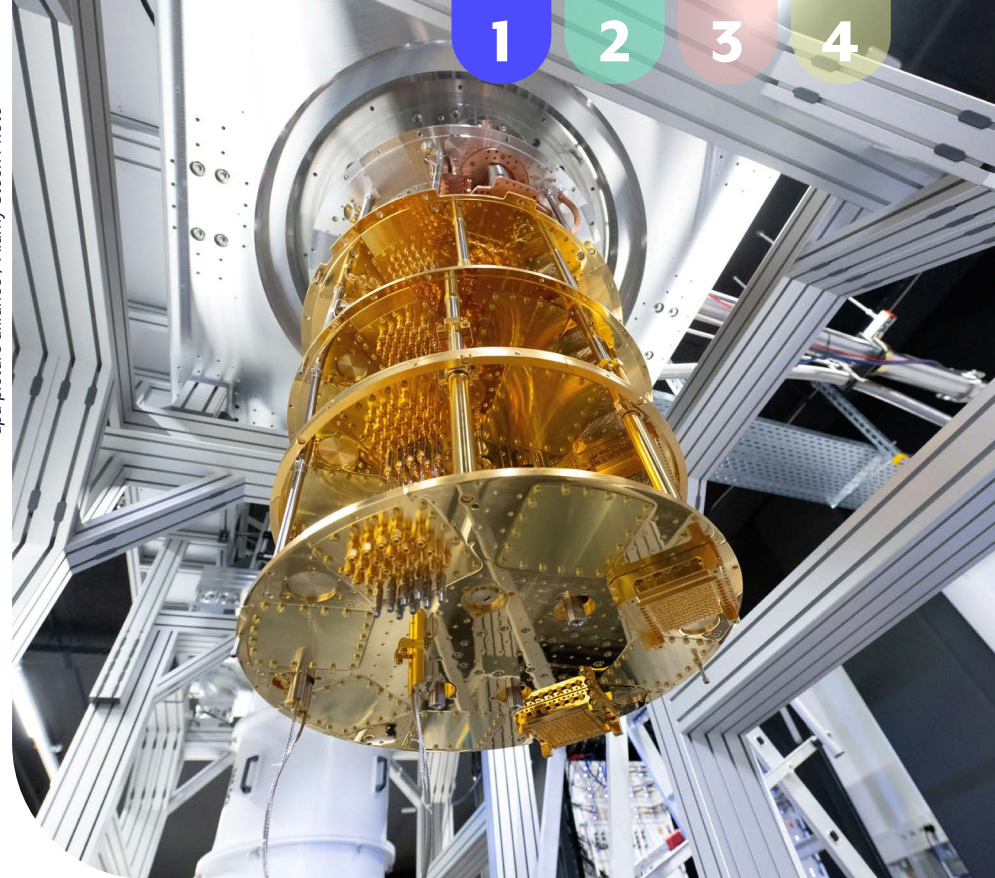
unintended consequences that can arise from this step change in computing power. As quantum computing poses an immense potential in cybersecurity and cryptography, it can also break existing encryption algorithms, posing a threat to traditional security systems and creating new type of threats. This could lead to the compromise of sensitive data, critical infrastructure, and global communication networks. The potential for widespread disruption and chaos underscores the urgent need to develop quantum-resistant cryptography and strengthen overall cybersecurity defences.

Furthermore, the advancements in quantum-powered artificial

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intelligence could outpace the development of ethical frameworks and governance. Unchecked, this could result in the creation of powerful AI systems that prioritise objectives misaligned with human values and well-being. The potential for such AI systems to cause unintended harm or to be weaponised for nefarious purposes represents a significant existential threat.

3. Space technologies

While continued space development increases every year, there are urgent risks

resulting from outer space activities under the current space law regimes and identifiable market failures.

Some argue that sensible changes, including shifting space into a closed-access commons as envisioned by the 1979 Moon Treaty, may help in achieving existential security. Gradual risks such as biosphere damage and space debris, light pollution, squandering of space resources, payload monitoring, and forward contamination might cause future problems.

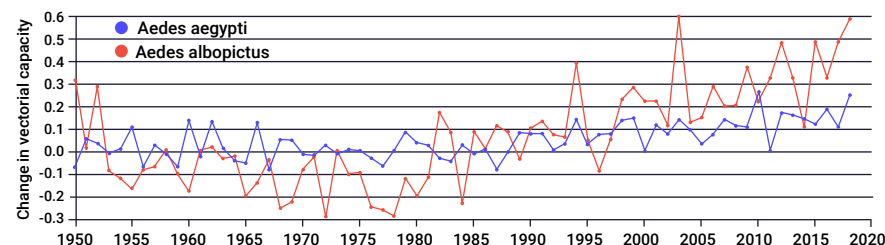
Climate change and other existential risks



JIEQIONG DUAN
NEVER member

1. The spread of disease and increase in pandemics

Climate change can alter ecosystems and weather patterns, leading to the spread of diseases to new regions and increasing the risk of outbreaks of diseases like malaria, dengue fever, or Zika virus. For example, according to the European Climate and Health Observatory, warmer temperatures have allowed many disease-carrying vectors to expand their distribution northwards and to higher altitudes. Novel diseases will place pressures on healthcare systems, likely to be felt most acutely in the global south given the relative under-development of healthcare systems in many poorer countries.



Climate Suitability for the transmission of Dengue – Change in the vectorial capacity for the transmission of dengue from a 1950-1959 vaseline, by vector.

Source: Watts, N., et al., 2021 Note: Data refer to the WHO European Region

2. Risks to biodiversity

Climate change is accelerating the loss of biodiversity as ecosystems struggle to adapt to rapid environmental changes. There is an enormous vegetation productivity loss. Species are either forced to migrate, adapt quickly, or face extinction. Taking Europe as an example, droughts from 2000 to 2022 impacted 4% of forests and 5% of grassland on average every year. Forest fires that occurred during heat waves and record droughts in central and northern Europe, areas that are not usually prone to fires, had disastrous consequences.

The first two biological threats caused by climate change also affect agriculture, water and food security, and ecosystem services that are vital to human survival. Risks from threats like ecological mitigation, decline in human fertility, and climate inequalities have increased.

3. Impact on nuclear weapons systems

Researchers from the Carnegie Endowment for International Peace⁴ analysed the possible effects of climate change on the US nuclear deterrent. Extreme weather, sea level rise, increasing temperature, and scarce resources led by climate change impact nuclear systems and operations, as well as the infrastructure of bases. The Carnegie study also predict that the NATO nuclear-sharing infrastructure is projected to be impacted by climate threats which will need to be mitigated.

Climate-induced resource scarcity also increases operational costs for nuclear systems, potentially leading to mismanagement or accidents, increasing the risk of conflict between countries or regions.

4. Compressed living space and geopolitical conflicts

As climate change reduces the availability of habitable land (through flooding, sea level rise, and resource depletion), countries may compete more aggressively for dwindling resources. This compression of living space could trigger

geopolitical conflicts, particularly in regions already prone to tension. These conflicts might involve competition over water, food, or arable land, and they may lead to armament races, including nuclear and AI-enhanced weapons development.

5. Interaction with AI

On the one hand, AI can be a useful technology to support transformational climate solutions; on the other hand, AI technologies are significant carbon emitters. According to researchers at the University of Massachusetts Amherst who analysed various natural language processing (NLP) training models, the carbon footprint of training a single big language model is equal to around 300,000 kg of carbon dioxide emissions.⁵ This is of the order of 125 round-trip flights between New York and Beijing.



Climate change is accelerating the loss of biodiversity as ecosystems struggle to adapt to rapid environmental changes.”

4. Jamie Kwong, Anna Bartoux, Noah Gordon, Daniel Helmei, “Climate Change Poses a Hidden Challenge to NATO Nuclear Deterrence”, Carnegie Endowment for International Peace, (2024), tinyurl.com/3v3jrmrs (accessed 14/01/2025).

5. Karen Hao, “Training a single AI model can emit as much carbon as five cars in their lifetimes”, MIT Technology Review, 2019, tinyurl.com/364mbe53 (accessed 14/01/2025).

AI and existential risks



**ARTHUR
DUFOREST**
NEVER member

1. Artificial intelligence

Artificial Intelligence is a buzzword that scares many and confuses most. Especially recently with the public release of ChatGPT, a large language model (LLM) which redefined the complexity and speed of human/algorithm interactions. The past two years have seen a goldrush when it comes to artificial intelligence and LLMs, with companies seeking to maximise their integration, mostly to capitalist ends, prompting (no pun intended) a scare wave over the replacement of jobs this could entail.

The AI/LLM bubble has seen overpromising from tech companies. AI's ability to generate content has been at times both hilarious and scary; has delivered on problems and increased human/algorithm productivity beyond what was thought possible and has failed in many other aspects.

While there is no doubt that this tool is a defining technological development of our generation, the fears of AI-take-over probably remain vastly unfounded. However, the fear of an undefined sentient take-over is distracting from other severe risks that stem from the possible uses of LLMs to cause harm whether physical, emotional, mental, societal, or otherwise through the spread of distrust among people. These need to be considered, for example, as companies press ahead with AI tools for the battlefield.⁶

Risks clearly arise from putting decision-making leverage in the hands of LLMs which are, essentially, of a complexity beyond our understanding, trained on data that may be faulty, prone to misalignment (inner and outer) or hallucinations, and kept in a "black box" that prevents us from understanding how this technology operates.

2. Cyber vulnerabilities of nuclear systems

Nuclear weapons, long seen as humanity's greatest existential threat, were developed before the rise of modern cyber warfare.

Today, as these systems have integrated digital technologies across their detection, communication, and launch processes – known as nuclear command, control, and communication (NC3) – they face new cyber vulnerabilities that were previously unimagined.

Key components of NC3, such as early warning radars and satellite systems, could be compromised by cyberattacks. These attacks might spoof signals to generate false detections or disable critical systems, potentially leading to a retaliatory nuclear strike based on faulty data.

Additionally, cyberattacks on communication networks could result in misinformation, targeting errors, or even unauthorised launches. Supply chains reliant on private contractors also pose risks. Compromised software or hardware integrated into nuclear systems could undermine their reliability, leading to hasty or misinformed decisions by military leaders.

Though these scenarios have not materialised, experts warn that the rising integration of cyber warfare into nuclear strategies increases the

risk of accidental nuclear conflict.⁷ Given today's heightened global tensions, the potential for cyberattacks adds another layer of uncertainty to an already precarious nuclear landscape. As nuclear and cyber threats become increasingly intertwined, addressing these vulnerabilities is critical to prevent catastrophic consequences. The time to enhance security measures and build trust in these systems is now, before theoretical risks become reality.

When considered with the threat actors, especially the integration of LLMs and AI to enable, facilitate, or assist cyberattacks, the prospect of an attack on NC3 systems becomes increasingly worrying. In addition, nuclear-armed nations are pushing for the integration of AI to their militaries, but thus far it has only been witnessed in an 'assistant role' rather than a full automated process.

While the technical aspects have not yet been resolved, the complexity and failure rates of AI systems are more likely to remain a constant and should serve as a warning to decision-makers that no AI systems should ever be handed influence of the nuclear command, control, and communication.

⁶ For more on LLMs and WMD, including the role of non-state actors, see Nicolò Miotto, "The potential terrorist use of large language models for chemical and biological terrorism", The European Leadership Network, 2024, tinyurl.com/467xs5dz (accessed 14/01/2025).

⁷ See e.g. Alice Saltini, "AI and nuclear command, control and communications: P5 perspectives", The European Leadership Network, 2023, tinyurl.com/4uxw6f4h (accessed 14/01/2025). Vladislav Chernavskikh, "Nuclear Weapons and Artificial Intelligence: Technological Promises and Practical Realities and SIPRI, "Nuclear Weapons and Artificial Intelligence: Technological Promises and Practical Realities", Stockholm: SIPRI, 2024, tinyurl.com/39afp2m9 (accessed 14/01/2025).

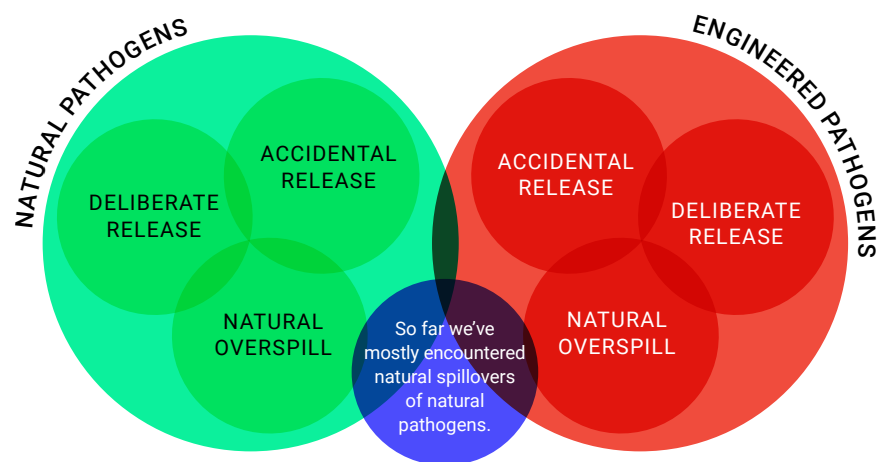
Biological threats – Rebecca Donaldson



REBECCA DONALDSON
NEVER member

Like nuclear fission, new technologies are usually developed by scientists striving to advance humanity: AI tools can make humans more productive⁸, and DNA synthesis has revolutionised biotechnology, facilitating, for example, the creation of better medicines or agricultural products. However, both technologies could also be misused to develop maximally virulent and infectious pathogens⁹.

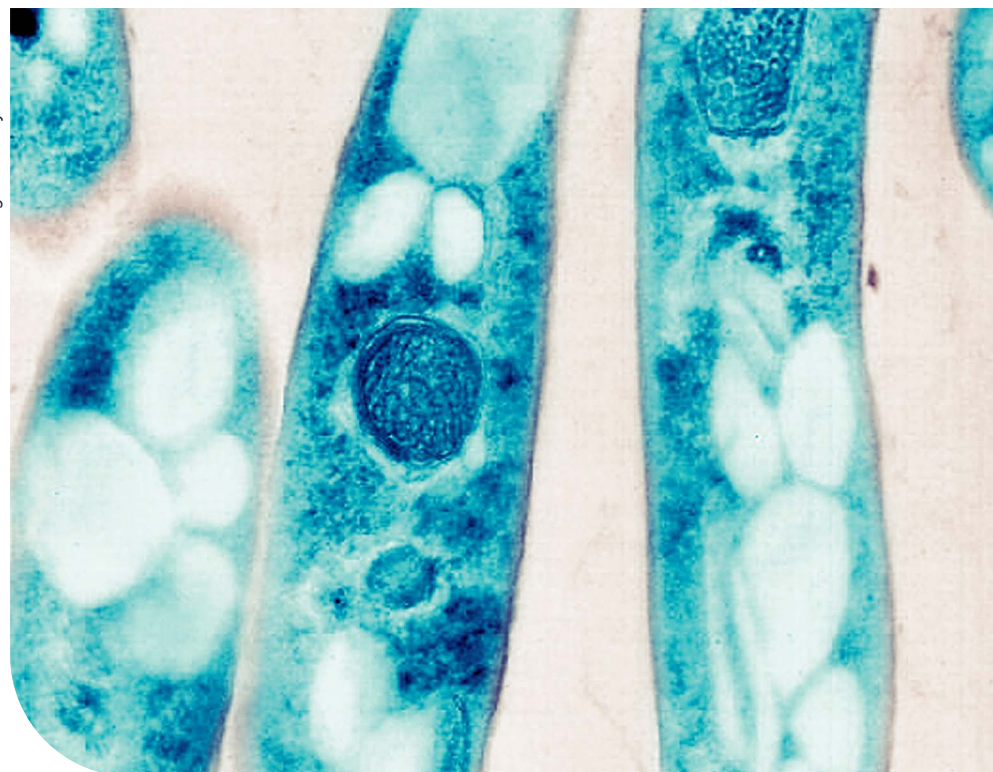
The potential risks from leading tech companies cutting corners are immense. They could, for instance, inadequately screen the orders of DNA they synthesise or fail to monitor the training runs of large AI models. The situation is not helped by the fact that current guidelines and levels of oversight are inadequate to track the activities of these companies. This has led to the concerning situation where humanity's very existence could depend on a handful of cutting-edge laboratories voluntarily adhering to best practices that have yet to be determined.



8 Michael Chui et al, "The economic potential of generative AI: The next productivity frontier", McKinsey and Company, June 14, 2023. Available at: tinyurl.com/2s45auyz

9 Mark Dybul, "Chairperson's Statement: Biosecurity in the Age of AI", Helena Projects, July 2023. Available at: tinyurl.com/5etpxprp

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Benchtop synthesisers allow labs to print their DNA without relying on commercial providers, making monitoring the production process for potential misuse more difficult. As the technology improves, allowing for precise DNA synthesis without special equipment, small groups or even individuals can access¹⁰ capabilities once restricted

to governments or sophisticated research labs. Combined with widely available and rapidly improving AI tools like large language models and the use of robotics to automate synthesis steps, it could significantly lower the barrier for less sophisticated actors to engineer pathogens¹¹, which could cause pandemics worse than COVID-19.

10 Tricia White, "Safeguarding Benchtop DNA Synthesis", Federation of the American Scientists, July 2021. Available at: tinyurl.com/mmycnj5e

11 Christopher A. Mouton, Caleb Lucas, Ella Guest, "The Operational Risks of AI in Large-Scale Biological Attacks: A Red-Team Approach", RAND Corporation, October 2023. Available at: tinyurl.com/287rbjw5

Cross-cutting and compounding factors

Existential risks aren't just connected to each other. They're connected into other global trends. There are cross-cutting and compounding factors that do not by themselves constitute existential risks but are likely to multiply the effects of those risks.¹² They could do this by contributing directly to these risks, like great power competition contributing to the risk of nuclear war or to a dangerously fast AI arms race,

or by impeding efforts to prevent catastrophe, like disinformation about pandemics. The compounding factors that have recurred the most in the NEVER network discussions have been:

- Great-power competition.
- Disinformation and distrust.
- Political polarisation – both internationally and within societies.
- Strains on multilateralism when collective solutions are needed.

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¹² These combinations of risks have some parallels with the recently popularised concept of the "polycrisis", although there is also a debate about the extent to which the world is genuinely in a worse state than it has been for most of human history, or whether the perception is fed by more awareness of bad news.

Geopolitics and existential risk



NICOLÒ
MIOTTO
NEVER member

Geopolitical rivalries and the resurgence of great power competition pose key challenges to multilateralism and the effectiveness of multilateral institutions. Because existential risks are by nature global challenges impacting the international, national, and sub-national levels, coordination among states is necessary to tackle them effectively. The demise of multilateralism constrains the margin of manoeuvre, negatively affecting the status of relations between stakeholders. The lack of consensus among states due to increased diplomatic and military tensions reduces the number of policy options to address existential threats.

Geopolitical rivalries and great power competition can be further worsened by political polarisation within states (which may among other things be the result of growing inequalities within countries, and perceptions that traditional national politics is failing to resolve issues caused by international trends).

Political dynamics at the international and national levels are crucial issues directly contributing to existential risks. However, they are not the sole compounding factors. Among other factors, disinformation has become a pivotal issue affecting societies and the relations between states. Disinformation campaigns conducted by both state and non-state actors are likely to multiply existential risks in several circumstances. For instance, disinformation about biological threats can not only prevent the effective implementation of counter-measures but also strongly increase military tensions between states and within society.

Notably, the compounding factors described are interlinked and can boost each other. For example, disinformation campaigns can contribute to political polarisation within a state, leading to the election of nationalist leaders who, in turn, can aggravate geopolitical rivalries with other states.

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Disinformation campaigns can contribute to political polarisation within a state, leading to the election of nationalist leaders.

INTERVIEW



SIR ADAM THOMPSON
ELN Senior Associate Fellow, former Executive Director of the ELN, and former UK Ambassador to NATO

Great-power competition is the key driver of existential risk

"I would argue that great power competition is almost certainly the single greatest driver of the existential risks that mankind now faces. There are only nine nuclear weapons states, and only two of them, Russia and the United States, have the capability to destroy civilisation because of the size of their arsenals. Perhaps at the moment, only two countries have the AI powers that might lead to rogue AI. That's China and the United States. And it's not a very much larger handful of countries that are responsible for the serious bio-capabilities that could be engineered to wipe out human beings.

There are 24 countries with category four biolabs, but it's only a handful of them that have the really high-end capabilities. Throw in climate, where just four major powers are responsible for over 55% of global carbon emissions, China, the United States, Russia, and India, which are incidentally also nuclear weapons states.

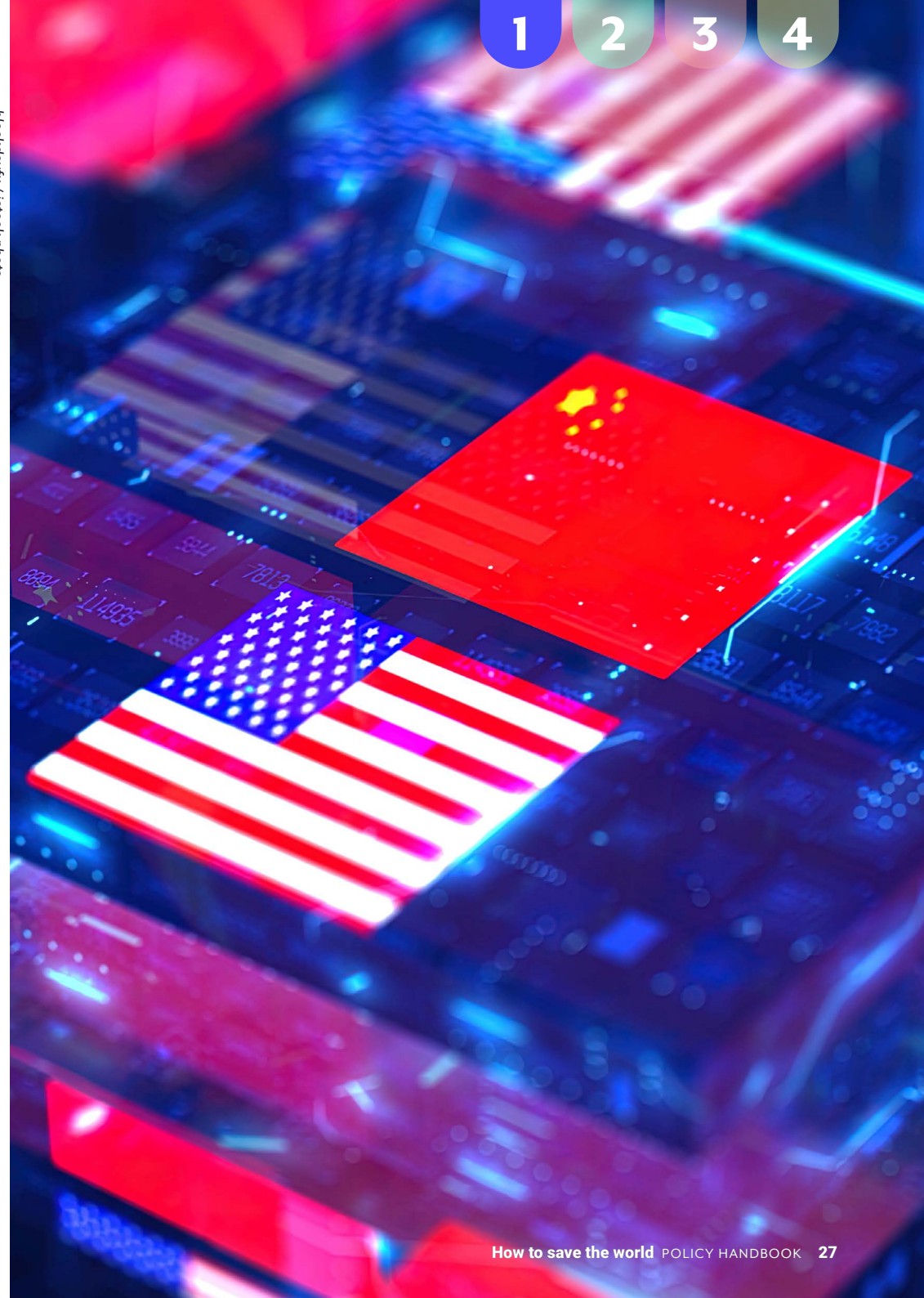
“

At this point in history, existential risk is intimately connected to great power dynamics.”

At this point in history, existential risk is intimately connected to great power dynamics. The great powers are all racing to beat each other to these capabilities, and regrettably, not one of them is thinking about how they are going to live with each other, not just for the 2020s, but if you think about it, for absolutely all generations to come, because the knowledge of these technologies is impossible to get rid of.

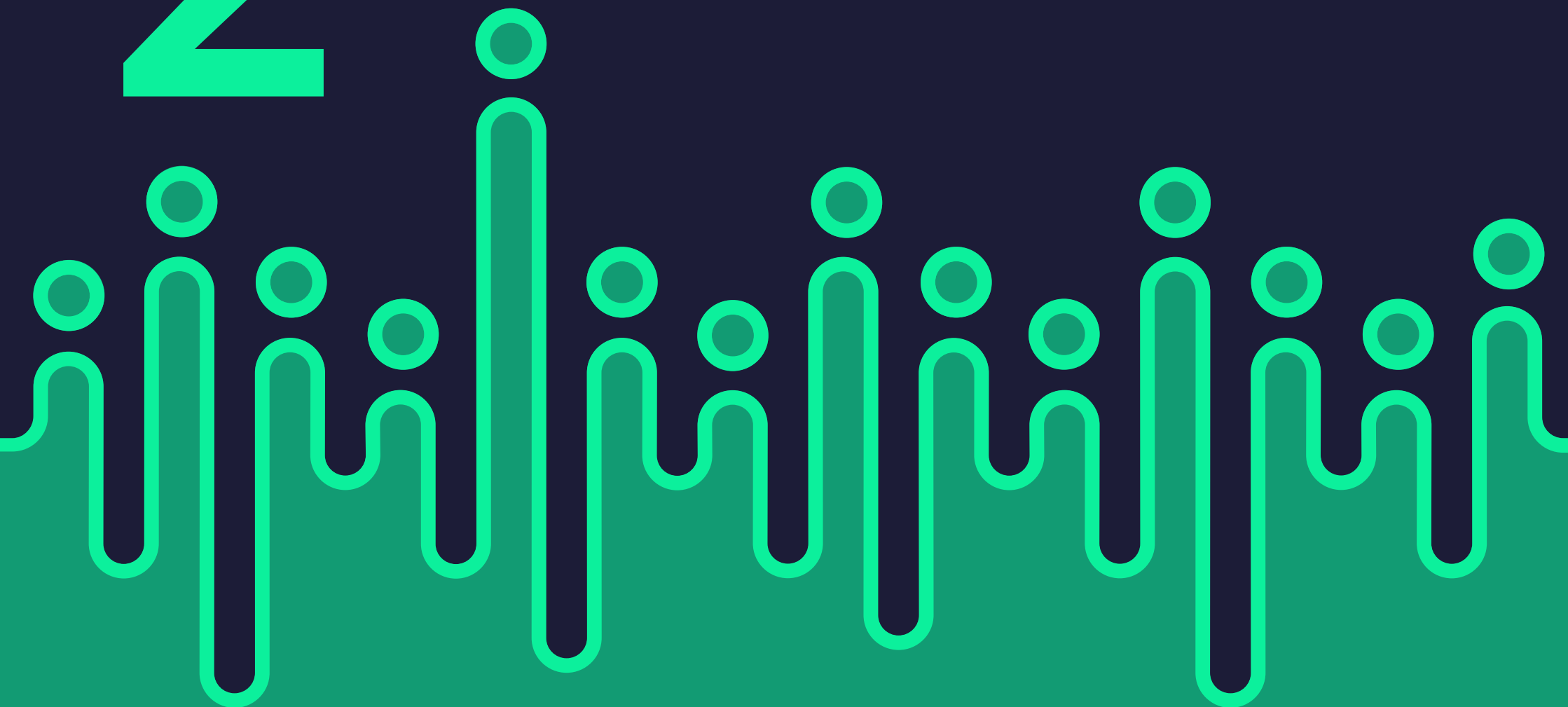
If we don't do it now, it's going to be infinitely harder in future, because these capabilities, AI or bioengineering, or even nuclear, are going to proliferate, and not just to countries, but to non-state actors as well. So, if you want to get a grip on existential risk, get a grip on global great power competition and do it now.”

blackdovfx / istock photo



2

THE EXISTENTIAL RISK TO-DO LIST



Chapter 2. The existential risk to-do list

The good news is that there are many proposed manmade solutions to these manmade risks.

Where have some specific targets been agreed and identified?

- **Climate change** – the 2015 Paris Agreement is a legally binding treaty requiring countries to take steps to collectively ensure that the global temperature does not increase 2 degrees centigrade above pre-industrial levels and to aim to limit it to 1.5 degrees. According to UN data, more than 140 countries have set a target to reach net-zero carbon emissions. This includes the biggest polluters – China, the United States, India and the European Union – and countries that between them account for 88% of global emissions.¹³
- **Biodiversity** – in 2022, countries responded to what the UN has called “the largest loss of planetary life since the dinosaurs” by agreeing to the Kunming-Montreal Global Biodiversity Framework, which aims to “halt and reverse” biodiversity loss by putting 30% of the planet into conservation by 2030, reducing subsidies that contribute to biodiversity loss, stopping the introduction of invasive species, and addressing a global biodiversity financing gap estimated at \$700bn per year by 2050.¹⁴
- **Climate finance** – in November 2024, nearly 200 countries reached agreement on a New Collective Quantified Goal on Climate Finance (NCQG) at COP29, though it is still unclear how the financing gap will be met: the countries agreed that developing countries need \$1.3 trillion per year of climate finance by 2035, but governments themselves only agreed to provide \$300 billion, with the rest being sought from private sources.
- **Nuclear weapons** – the cornerstone of the multilateral non-proliferation and disarmament system is the Non-Proliferation Treaty, signed by 191 countries including the five internationally

¹³ The United Nations, “For a liveable climate: Net-zero commitments must be backed by credible action”, The United Nations: Climate Action-Solutions-Net Zero, tinyurl.com/8a9vayfd (accessed 14/01/2025).

¹⁴ Convention on Biological Diversity, “Kunming-Montreal Global Biodiversity Framework”, United Nations Environment Programme, 2022, tinyurl.com/2wh525dx (accessed 14/01/2025).



Geopolitical and ideological competition may persist, but that should not preclude working together on these challenges that face all of us, which are, frankly, far more threatening in many ways than the geopolitical one”

PROFESSOR FRANCIS J. GAVIN, INTERVIEW, THE OK, DOOMER! PODCAST

- recognised nuclear-weapons states but not the other four countries known or thought to have nuclear weapons. The Comprehensive Nuclear Test-Ban Treaty is signed by most countries in the world but, unusually, has never been able to enter into legal force as it first needs to be ratified by a number of specific states that have not yet been willing to do so. Nonetheless all countries seem to be abiding by its provisions, and the CTBT Organisation carries out extensive monitoring to show compliance – offering a fascinating case of normative power by a non-binding treaty.
- Then there is the Treaty for the Prohibition of Nuclear Weapons, signed by 94 countries in the world but not by any nuclear-armed states – it has thus entered into force in international law, but the non-signatories hold that because they have not signed it, they are not bound by its provisions¹⁵, although there is a debate about whether the treaty could in time lead to the development of wider-ranging customary international law prohibiting nuclear weapons entirely¹⁶.
- In addition to these global systems, there are regional agreements on WMD-free zones and a variety of international arms control agreements, primarily bilateral ones between the US and Russia, which have increasingly been eroded in recent years. The US has called for trilateral arms control negotiations between the US, Russia, and China as the latter becomes an increasingly significant nuclear-weapons possessor. There are active discussions about other possible international agreements such as

¹⁵ See e.g. Claire Mills, “Research Briefing: Treaty on the Prohibition of Nuclear Weapons, UK Parliament House of Commons Library”, June 2022. Available at: tinyurl.com/2hx4c6ws; Yasmin Afina and Tim Caughley, “NATO and the Frameworks of Nuclear Non-proliferation and Disarmament Challenges for the 10th NPT Review Conference”, Chatham House, December 2020. Available at: tinyurl.com/5f6bwdbv

¹⁶ See e.g. Kennedy Graham, “The TPNW Conference of Parties: What Is to Be Discussed?”, Journal for Peace and Nuclear Disarmament Volume 3, 2020 - Issue 2. Available at: tinyurl.com/hevf42ya

a Chinese proposal for a no-first-use treaty¹⁷, or a treaty to codify negative security assurances for non-nuclear states¹⁸.

- The Outer Space Treaty prohibits the stationing of nuclear weapons or other WMD in space.
- Biological threat reduction, prevention and identification is primarily dealt with by the Biological Weapons Convention, but it has very limited monitoring and implementation capabilities with a small team of just three people appointed to support its implementation. Most of the responsibility for enforcing the treaty is left with member states though there are proposals for a stronger international body.
- AI and EDTs are the areas where global binding treaties are lacking. Many doubt whether such global and binding treaties are currently feasible either politically, given the contested international political environment and strains on multilateralism, or

technically, as the technologies themselves are evolving so rapidly; it is, however, important to note that the NPT was itself negotiated at another time of international contestation during the Cold War, as noted by historian Francis J. Gavin¹⁹. Instead, there are a growing number of initiatives seeking to establish 'softer' principles such as norms, guardrails, and best practice. These have focused on AI in particular. The EU's AI Act²⁰ is now law, while the Council of Europe has drafted a Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law,²¹ which is opened for signature in September 2024, while the BRICS group wants to assert itself as a driving force in AI governance too.²²

- There is a growing focus on AI in military domains, now being addressed by a number of 'mini-lateral' processes including the REAIM summits. The UN will seek to take a leading role

in establishing international guardrails here as part of its follow-up to the 2024 Summit of the Future. An international initiative on lethal autonomous weapons (LAWS), led by Austria, seeks to regulate AI-driven weapons and has marshalled grassroots support linked to the 'Ban Killer Robots' campaign.

Thus, there is much to work with. The bad news is that governments are not necessarily implementing all of what has already been agreed, such as climate finance or nuclear disarmament. And there is no systemic approach to the systemic problems of existential risk.

Systemic approaches are badly lacking

There are important existing treaties and bodies working to prevent existential and catastrophic risks, at the level of each specific risk – the Non-Proliferation Treaty, the COP process, the Biological Weapons Convention – but not a cross-cutting body on global existential threats.

Existential risks are interconnected, and it is therefore logical to take systemic or holistic approaches. For example, what if attempts to address one risk create others? As just one example, in an article for NEVER, Jakob Gomolka argues that



any introduction of geoengineering (solar radiation modification), a technology conceived as a possible way to mitigate climate change, would be likely to have extremely uneven impacts on different countries and people, which could intensify geopolitical tensions²³.

In an attempt to take a more systemic approach, the 2024 UN Summit of the Future brought states together to commit to protecting future generations, including from existential and catastrophic risks. The resulting Pact for the Future has provided a useful overarching framework for addressing risks in the interests of future generation, but it does not itself have an implementation mechanism. Instead, implementation will be down to a much wider set of actors, with the Pact providing a useful framework for those efforts to plug into.

17 Li Bin, "Why a substantive and verifiable no-first-use treaty for nuclear weapons is possible", Bulletin of the Atomic Scientists, June 4 2024. Available at: tinyurl.com/55bwa7p5

18 Farrukh Khan, "Why Non-Nuclear States Need Negative Security Assurances", University of Pennsylvania, Perry World House, July 2023. Available at: tinyurl.com/3a6ft5b7

19 Interviewed for Ok, Doomer! podcast episode, "How to save the world", available here: tinyurl.com/488cw9k3

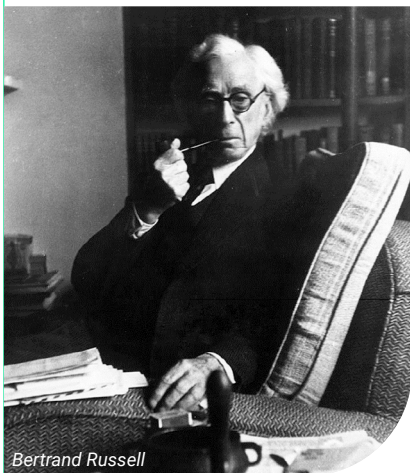
20 Julie Lübken, "The EU's Artificial Intelligence Act: A golden opportunity for global AI regulation", The European Leadership Network, 2024, tinyurl.com/5n7zhss5 (accessed 14/01/2025).

21 The Council of Europe, "Committee on Artificial Intelligence (CAI)", 2024, tinyurl.com/58a8ahfc (accessed 15/01/2025)

22 Arjit Goswami, "The role of artificial intelligence in fostering multifaceted cooperation among BRICS nations", Africa Policy Research Institute, 2024, tinyurl.com/469n28vn (accessed 15/01/2025).

23 Jakob Gomolka, "Unstable Systems: Why geoengineering will solve neither climate change nor climate geopolitics", European Leadership Network, June 6 2024. Available at: tinyurl.com/a4ryrjxn

Existential risks, scientific internationalism, and one-worldism



Bertrand Russell

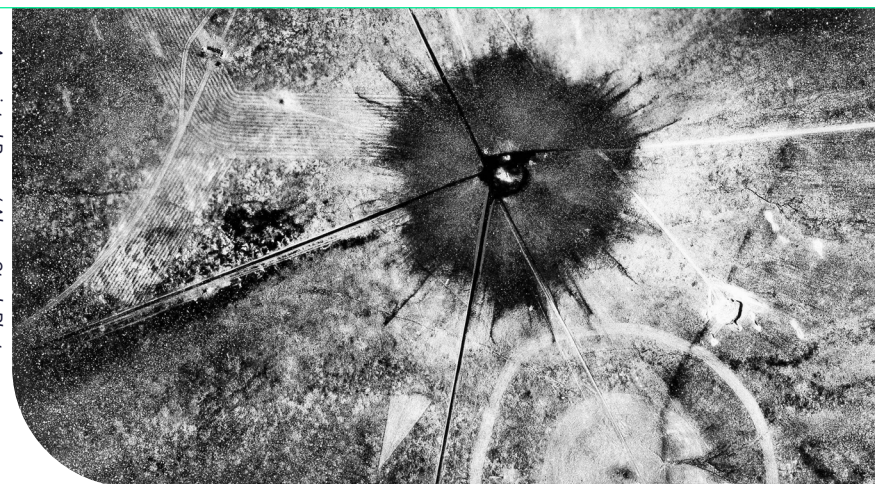
To highlight the profound ways in which existential threats can drive arguments for global cooperation, consider the “nuclear one-worldism”²⁴ of the 1950s when experts wondered if the birth of nuclear weapons would force a radical rethinking of the role of the state in international relations. For example, the distinguished philosopher and nuclear abolitionist Bertrand Russell argued that the UN or a body

like it – which he thought should include all countries and have no veto-wielding minority – “must gradually acquire the functions of a world government in all that concerns peace or war. The problem that has to be solved is not merely that of avoiding war for a few years or a few decades. It is that of avoiding serious war forever”.²⁵

Influential nuclear scientists called for a world federal entity to control nuclear energy, arguing that global governance was the only way to control and manage the risks posed by nuclear technology. One of their foundational principles was “scientific internationalism”²⁶, the idea that scientific exchange and understanding is a shared international interest that requires cross-border openness and cooperation.

Over the subsequent decades, this idea largely disappeared from international relations and

Associated Press / Alamy Stock Photo



security studies – although it continued to influence elements of the peace movement. Today one is probably more likely to hear the idea of ‘world government’ from conspiracy theorists who claim that existential threats like pandemics are invented by the secret rulers of the world in order to justify world government.

Meanwhile today there is a widespread view that international order is becoming less cooperative and that trends towards globalisation are being replaced by deglobalisation, fragmentation, ‘minilateralism’, and regionalisation.²⁷ Arguments for cooperation against

existential risk are strong and ever-growing as the rapid growth of technology creates possibilities for both risks and opportunities on an immense scale. But arguments and models for cooperation need to be made in a context where international cooperation and multilateralism seem to face multiple severe challenges. As the development of a patchwork of different AI governance initiatives illustrates, new governance initiatives for existential threats may be developed by different groups of countries or international organisations in a competitive, rather than a coordinated, manner.

²⁷ This is difficult to prove as international relations scholars have no consensus about how to measure international cooperation, or whether they really believe in it.

²⁴ Daniel Deudney, “Nuclear Weapons and the Waning of the Real-State”, The MIT Press, Daedalus Vol. 123, No 2, What Future for the State?, 1995, Pages 209-231, tinyurl.com/6brbwph (accessed 15/01/2025).

²⁵ Bertrand Russell, “1958: Only world government can prevent the war nobody can win”, Bulletin of the Atomic Scientists, 2020, tinyurl.com/2n9kbrju, (accessed 15/01/2025).

²⁶ John R. Emery and Anna Pluff, “Manhattan Project Scientists Believed the Way We Get Out Alive is World Government”, Inkstick, 2023, tinyurl.com/jm33afxd, (accessed 15/01/2025)

Today, a number of organisations and experts, from the NGO Global Shield to the writers Jamie Metz and Stephen Heintz, have pointed out the logic of taking a comprehensive approach.²⁸ Global Shield calls for an “all-hazards approach”²⁹ that would manage global catastrophic risks as an interconnected set of issues.

However, a holistic approach is also hard to implement when global governance is fragmented and patchy and there are strong political trends towards deglobalisation. It may be more likely that there will be a patchwork of overlapping initiatives tackling different aspects of existential risk, with different international organisations and groupings sometimes competing to define governance on these issues, as part of their wider competition for global leadership. For example the US led a Political Declaration on Responsible Military Uses of AI in 2023 which was signed by a large number of states, but not by Russia or China.³⁰ According to ELN consultations, experts and diplomats sense that in the current geopolitical environment,

Russia, and China are highly unlikely to sign a US-led initiative on AI – regardless of its content. Meanwhile the growing BRICS group is preparing its own AI governance initiative.³¹

In this kind of environment there is even more need for coordination, and for initiatives that address the intersections between different risks even if they don't address the full complexity of the interactions. Policy researchers also need to clearly identify who they are writing for – ‘the international community’ certainly doesn't cut it anymore.

Some specific countries have sought to pass national laws or create bodies to look at existential risks and/or long-term issues from a holistic viewpoint. The US Global Catastrophic Risks Act is the first governmental initiative to address global catastrophic risks holistically. Policy frameworks focused on resilience, preparedness, disaster and emergency management can also take account of global existential and catastrophic risks as part of a spectrum from immediate crises to long-term ones.

Learning lessons across different fields

Several campaigners and experts are proposing international treaties or organisations to govern new existential threats, based on the models the world already has to govern the older ones. For example;

- 13 small island states and thousands of civil society representatives are calling for a Fossil Fuel Non-Proliferation

Treaty to end fossil fuel development and phase out fossil fuels as a complement to the Paris Treaty

- The UN Secretary General is among the leaders who has called for a global AI governance body modelled on the International Atomic Energy Agency or the Intergovernmental Panel on Climate Change³².

mitch / iStock photo



28 Stephen Heintz, “A Logic for the Future: International Relations in the Age of Turbulence”, Rockefeller Brothers Fund, 2024, tinyurl.com/26rmcn3k, (accessed 15/01/2025).

29 Rumtin Sepasspour, “All-Hazards Policy for Global Catastrophic Risk”, Global Catastrophic Risk Institute Technical Report 23-1, 2023, tinyurl.com/2uzuh99v, (accessed 15/01/2025).

30 Bureau of Arms Control, Deterrence, and Stability, “Political Declaration on Responsible Military Use of Artificial Intelligence and Autonomy”, U.S. Department of State, 2024, tinyurl.com/495n7hmt, (accessed 15/01/2025).

31 Laura Mahrenbach and Mihaela Papa, “BRICS Wants to Shape Global AI Governance, Too”, World Politics Review, 2024, tinyurl.com/3zrnke4, (accessed 15/01/2025).

32 Huw Roberts, Emmie Hine, Mariarosaria Taddeo and Luciano Floridi, “Global AI governance: barriers and pathways forward”, International Affairs, Volume 100, Issue 3, 2024, Pages 1275–1286, tinyurl.com/3bdv4x2f, (accessed 15/01/2025).

INTERVIEW



NILS SCHMID
Member of the
German Bundestag

Multilateral initiatives can motivate states

Nils Schmid, Member of the German Bundestag, interviewed by NEVER member Emil Nafis Iftekhar, on the parallels between calls for AI governance and campaigns for disarmament and climate action

These risks can probably only be mitigated together internationally. At the same time, people talk about the downfall of multilateralism. Which options for international cooperation do you see?

Indeed, this is very difficult now. Processes at the UN are being blocked a lot. AI development is from an economic and military perspective too full of promise that state actors are willing to have restrictions in the development. Discussion at UN level are stagnating. Germany wants to regulate AI, but there are many differences within NATO. I do not believe multilateralism can solve the issues directly, as multilateral organisations have too little political capital. However, multilateral initiatives like the Summit of the Future and COP climate conferences can raise awareness and set the agenda, which can help to motivate bilateral discussions and decisions among the powerful people and states who would actually make the decisions.

Does the world have to wait until there is a disaster before realising how urgent these risks are?

There are possible scenarios for regulation and risk mitigation without any disaster. For instance, if the USA and China see risks in their competition in AI development, like the USA and Russia did in nuclear during the Cold War, and decide to mitigate them together. But this requires some motivation. Russia tends to regulate AI in a soft way and without any binding regulations. China's trajectory and how they plan to act on the global stage remains unclear.

M Ramirez / Alamy Stock Photo

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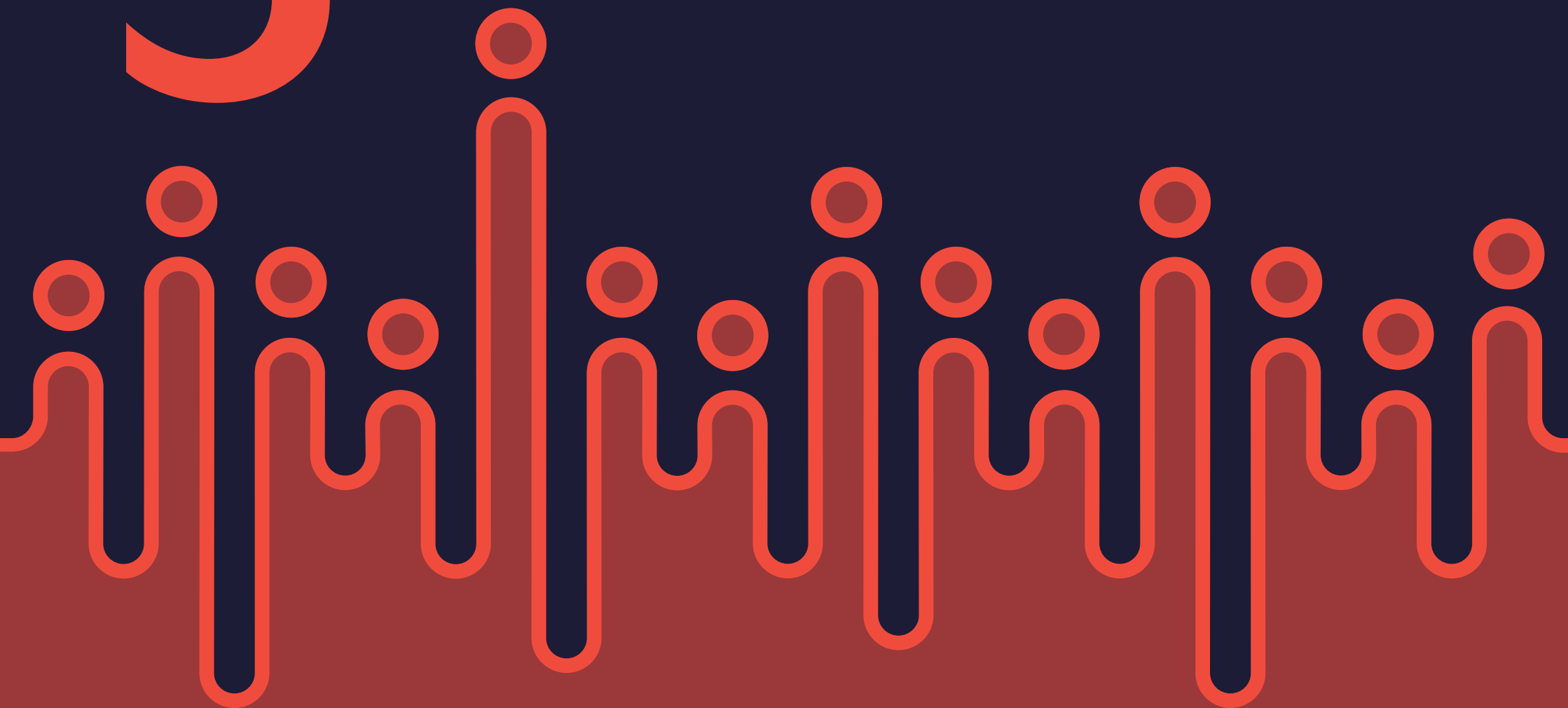
I do not believe multilateralism can solve the issues directly, as multilateral organisations have too little political capital.”

NILS SCHMID



3

WHAT ARE THE BLOCKERS?



Chapter 3. What are the blockers?

Discussions among the NEVER network tended to come back to five big blockers:

- Geopolitical competition and collective action problems.
- Status quo resistance.
- Short-termism and long-term action problems.
- Bureaucracies that aren't yet built for existential risk complexity.
- Denial and disinformation.

Geopolitical competition and collective action problems

States' incentives to cooperate are constrained by simultaneous competition with each other for economic, technological, and – in some cases – military advantage. The economic concepts of collective action problems and 'public goods problems' are relevant here; for example when countries agree on ambitious financing goals for biodiversity but cannot agree on who should pay what, and offer different visions of what would be fair, when distributing the burden between countries with different income

levels, stages of development, and colonial legacies³³.

Clearly knowing there is a problem is only the first step. According to IPSOS-MORI's 'Global Trends 2024', 80% of people surveyed in 50 countries agree that the world is headed for climate disaster without urgent action; however 72% say they feel that they themselves are already doing "everything they can" to address it.³⁴ IPSOS also note that attitudes to climate and the environment have shown one of the strongest shifts seen on any topic over the past decade. Between 2014 and 2024, the world has moved from questioning whether climate change is really happening, to debating how best we meet binding global targets for carbon emissions. Yet this change in mindsets has not resulted in sufficient policy action.

Longstanding collective action problems have been exacerbated by growing global divides over who holds power in the international

system, and a competition over the international order. Most obviously, Russia's invasions of Ukraine in 2014 and 2022 have created deep international divisions, and, among other things, the UN Security Council's ability to protect international peace and security has been profoundly damaged, even as global catastrophic risks loom on the agenda.

Vested interests' resistance

Existential risks are major systemic issues. Systemic change will tend to face resistance from those that see themselves as likely to lose out. Proposals for change therefore have to engage with strategic questions about how far those pushing for change can or should negotiate win-wins, accommodate the powerful, or disrupt them more profoundly. Again, the issues of justice recur (e.g. the debate about climate justice is seen very differently by fragile states that depend heavily on their oil production and revenues to function).

In the climate change space, for instance, governments have tended to try to work with oil companies and with large oil-

exporting countries: the last three COPs have been hosted by countries that are net oil exporters. Climate science has made huge political progress in recent years with widespread acceptance that climate change is a reality and that carbon emissions need to be cut. Nonetheless, a 2023 report by the International Energy Agency found that oil and gas companies accounted for just 1% of the world's clean energy investment globally, with 60% of that coming from just four companies³⁵.

At the same time, there is a debate over whether climate change mitigation efforts should focus on making green business profitable, or rethinking economic models more profoundly. Some criticise approach of 'green capitalism' rather than using climate change as a springboard for a broader re-imagining of economic systems. Similarly, in the nuclear disarmament field, actors are divided over whether to focus on 'banning the bomb' and the Treaty for the Prohibition of Nuclear Weapons, or persuading nuclear-armed states to commit to long-term disarmament.

33 As one recent example, French president Emmanuel Macron cancelled his attendance at COP 29 in Azerbaijan after a row over the Azerbaijani president's position on France's treatment of protests in its former colony New Caledonia

34 Ben Page, Jennifer Bender, Billie Ing, Mercedes Bender, Mac Mabadilala, Giulia Bertini, Luciana Obniski, Matt Carmichael, Karthik Ramamurthy, Mike Clemence, Diane Ridgway-Cross, Nick Chiarelli, Xavier Santigosa, Mathieu Doiret, Irfan Setiawan, Luis Giraldo, and Kelly Yin, "IPSOS Global Trends In Search of a New Consensus: From Tension to Intention", Ipsos, Pages 31-32, 2024, tinyurl.com/53ntswhf, (accessed 15/01/2025).

35 International Energy Agency, "The Oil and Gas Industry in Net Zero Transitions", World Energy Outlook Special Report, World Energy Outlook 2023, November 2023 (executive summary). Available at: tinyurl.com/4c7twd9v

Designing specific policy solutions therefore involves hard questions about how radical the change you're seeking should be. Should the priority be pressuring governments to enforce net zero commitments, and giving business incentives, which some have called a 'green capitalism' approach? Or does climate change necessitate a bigger economic and political rethink and provide a chance to envisage a just transition that can open up new forms of organisations and societies? These questions obviously relate to much broader political debates about justice, ethics, the nature of international relations and human behaviour.

With no single way to answer such questions, the world will be contending with a variety of initiatives and visions for tackling existential risk, bringing diverse approaches to the table, which will be connected to competing visions of politics more generally (on issues such as capitalism, free trade, decolonisation, etc). Strategies to influence positive change will need to consider how the interactions between these different approaches can help push the status quo actors towards at least relative progress. For

example, the normative pressure of the Treaty on the Prohibition of Nuclear Weapons (TPNW) may be able to push nuclear-armed states to show some kind of positive action within the NPT framework.

Short-termism and avoidance

Policymakers are constantly busy with multiple immediate crises demanding attention. When long-term issues and short-term issues compete for political attention, short-term issues routinely win. This creates 'long-term action problems', a variant on collective-action problems. A 2021 World Bank paper on pandemic preparedness identified "the cycle of panic and neglect"³⁶ for pandemic preparedness – which could certainly apply to other areas of risk too.

Political scientist Daniel Drezner highlights three reasons why governments struggle to invest in preventing existential risks: 1) humans find it harder to think about emergent threats than obvious crises, 2) few organisations focus on disaster prevention, 3) and voters may be less likely to reward a government for preventing future crises than for responding to visible problems.³⁷

Related to Drezner's points, both philanthropic and government funders can also be reluctant to invest in prevention because it is more difficult to prove impact, a point often made in the conflict prevention space in particular (although the prevention concept is increasingly accepted in the spheres of global health and climate change).

"Visible problems receive many more media coverage, like the news on the latest scientific findings and extreme weather events. During the Amazon fire, which is believed to be caused by climate change, there was daily coverage in the 24 hour news including frightening images on the TV. This raises the awareness of many citizens and encourages them to engage in action. But for some other existential problems, like the nuclear weapon issues, many people just believe this problem is far away, high-level and a matter for the government, with no practical solutions in their real life. So they may choose to ignore it or just leave it to the government".³⁸

Dr Ziya Meral, speaking to the Ok, Doomer! podcast, meanwhile warned that talking about huge risk scenarios can produce overwhelm and fatigue; "[f]or so many people,



Brasil2 / istock photo

the right audience hears these conversations, but feel overwhelmed by it. So how do we communicate these risks in such a way that we're able to break them down to specific actions, specific kind of things individuals can do, their units can do, their nations can do?"³⁹

In addition to fatigue and overwhelm, fatalism can be a problem. Experts in communicating on climate change have expressed concern that repeated warnings of "the last chance to save the world" can be counterproductive as it is all too easy to tip into a sense that it is already too late.

36 International Working Group on Preparedness, "From Panic and Neglect to Investing in Health Security: Financing Pandemic Preparedness at a National Level", World Bank, May 2017. Available at: tinyurl.com/58b4krd6

37 Daniel W. Drezner, "Thinking About... Thinking About Existential Risk", Drezner's World, 2024, tinyurl.com/63s5ayb6, (accessed 15/01/2025).

38 Okay Doomer interview, climate episode

39 Okay Doomer interview, climate episode

INTERVIEW



ALEXANDER KMENTT
Director for Disarmament, Arms Control and Non-Proliferation in the Austrian Ministry for Foreign Affairs

Cooperating on existential risk in uncooperative times

NEVER member Nicolò Miotto interviews Alexander Kmentt, Director for Disarmament, Arms Control and Non-Proliferation in the Austrian Ministry for Foreign Affairs

Earlier, you mentioned how treaties such as the Treaty on the Prohibition of Nuclear Weapons (TPNW) are bringing attention to the effects of nuclear warfare on other existential risks, such as climate. Could you expand on this?

The TPNW has a number of States Parties whose communities are still devastated, partly by the legacy of nuclear testing, which, of course, has a terrible colonial element. Where did these nuclear tests take place? In remote areas, impacting indigenous people who were already marginalised. The injustice of this is very serious.

At the same time, many people avoid thinking about nuclear war because they see it as the absolute end of everything – where everybody dies – rather than considering what the world would be like afterwards. We already struggle with migration as a political issue in Europe. Imagine what would happen after a nuclear war: What happens to supply chains? To the economy? To social structures? Life afterwards would be catastrophic, as the world would be completely ravaged.

Right now, as more countries and actors place greater emphasis on the security value of nuclear weapons, we must have this conversation. Some believe that nuclear disarmament can only happen in a completely different security environment – a future where harmony reigns. But somehow, we need to ask the realists to be less

idealistic. Assuming that nuclear deterrence will hold indefinitely until an ideal security environment allows for nuclear disarmament, is more idealist than realist. Such an ideal environment will never exist.

We need to make urgent progress on nuclear disarmament in today's contested world. Anything else is an excuse for inaction.

Change on nuclear weapons will never come exclusively from the security/nuclear policy expert. We've been going around the same arguments for decades. A true paradigm shift must include much wider constituencies in the conversation.

We need the humanitarian, medical, and environmental communities to engage much more deeply with nuclear weapons than they have in the past. Security policy is part of the discussion, but it cannot be the only lens. The discourse must be broader – this is why the upcoming UN panel of scientists on the consequences of nuclear war is so important.

We don't like to talk about the end of civilisation. Most people are more concerned with their daily lives – things like what to have for dinner tonight. The thought of nuclear Armageddon is terrifying, and when people feel powerless, they push it aside.

But we must have this conversation, and we must pair it with the understanding that there are actions we can take. When people feel they have agency, they can engage. I strongly believe in working toward international rules, even when some actors refuse to do so. That does not absolve the rest of us from trying to build common understandings and best practices.

Denial and disinformation

There is a risk that solutions will emerge to existential risks, yet no one believes in them. Covid-19 vaccines provide a powerful recent example. To counter denial and disinformation, facts and evidence need to be available, but growing research indicates that disinformation isn't just about a lack of facts, or even a lack of critical thinking faculties. It's also rooted in people's desire to believe a particular version of events. Existential risk is scary, and changes can also seem hard. Making progress will also depend on convincing people that change is possible and necessary – dealing once again with issues under short-termism and avoidance.

Bureaucracies that aren't (yet) built for this

Between brilliant policy ideas and actual policy action are issues of bureaucracy, budgets, and

bandwidth. Smart solutions may fall by the wayside when no one owns the problem or when no one has the capacity and resources. A solution might be logical from a systemic point of view, but not logical for the mandate and obligations of the individual government or ministry. National governments are certainly not designed for global systemic thinking. Even at a national level, there are always silos. Multilateral institutions may have more scope for that thinking, but less ability to implement. When it comes to governing risks from EDTs, there is the added challenge of how governments are adapting to the fact that technology today is driven by the private sector, contrasting with the 'military industrial complex' of the past. Proposals for systemic change can easily falter when they lack a joined-up system to implement them – especially if they imagine solutions to be centralised, rational, and efficient.

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Somehow we need to ask the realists to be less idealistic. Somehow, we need to tell them that the world will never look ideal; you will never have an ideal environment for nuclear disarmament. But this doesn't mean that you should not start the process.”

ALEXANDER KMENNT

Drazen / Adobe Stock



INTERVIEW



STEFANIE BABST
ELN Senior
Associate Fellow
and former NATO
Deputy Assistant
Secretary-General

Tackling short-termism and a lack of leadership

NEVER member Valeriia Hesse interviews Stefanie Babst, ELN Senior Associate Fellow and former NATO Deputy Assistant Secretary-General

How can we overcome the problem of short-termism in government? Or do we have to find ways to work with and around it?

Nationally and in international organisations, there are people and structures dedicated to strategic planning and policy planning, who are charged with interrupting the short-term attention span of policymakers, integrating long-term thinking and making concrete proposals to address long-term challenges. But all too often, strategic policy planning has really been reduced to looking at the weekly agenda and organising press conferences.

My recommendations for European governments would include really investing seriously in policy planning, and into strategic foresight, and making them an integral part of the culture. Around any table, there needs to be someone who can injects this perspective and point to signals, point to trends, which are probably small and largely undetected by most people, but which really matter. There are some good examples in Scandinavian countries in particular and in Finland. Data mining technologies can help but ultimately it depends on a human being in a leadership position to say: I want this type of discussion. I want this type of reflection.

Much comes down to human nature – everyone wants to get re-elected and don't want to start



VALERIIA HESSE
NEVER member

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The more diverse the people feeding in, the better. It is easy for policymakers to operate in silos and echo chambers. And in order to remain agile, in order to remain capable of taking decisions, I would place guarding our democracies as number one.”

STEFANIE BABST

something that will be stressful for the population in the upcoming days.

What you're actually pointing at is one of the most central issues, which is the issue of leadership. How do you lead when people fear change?

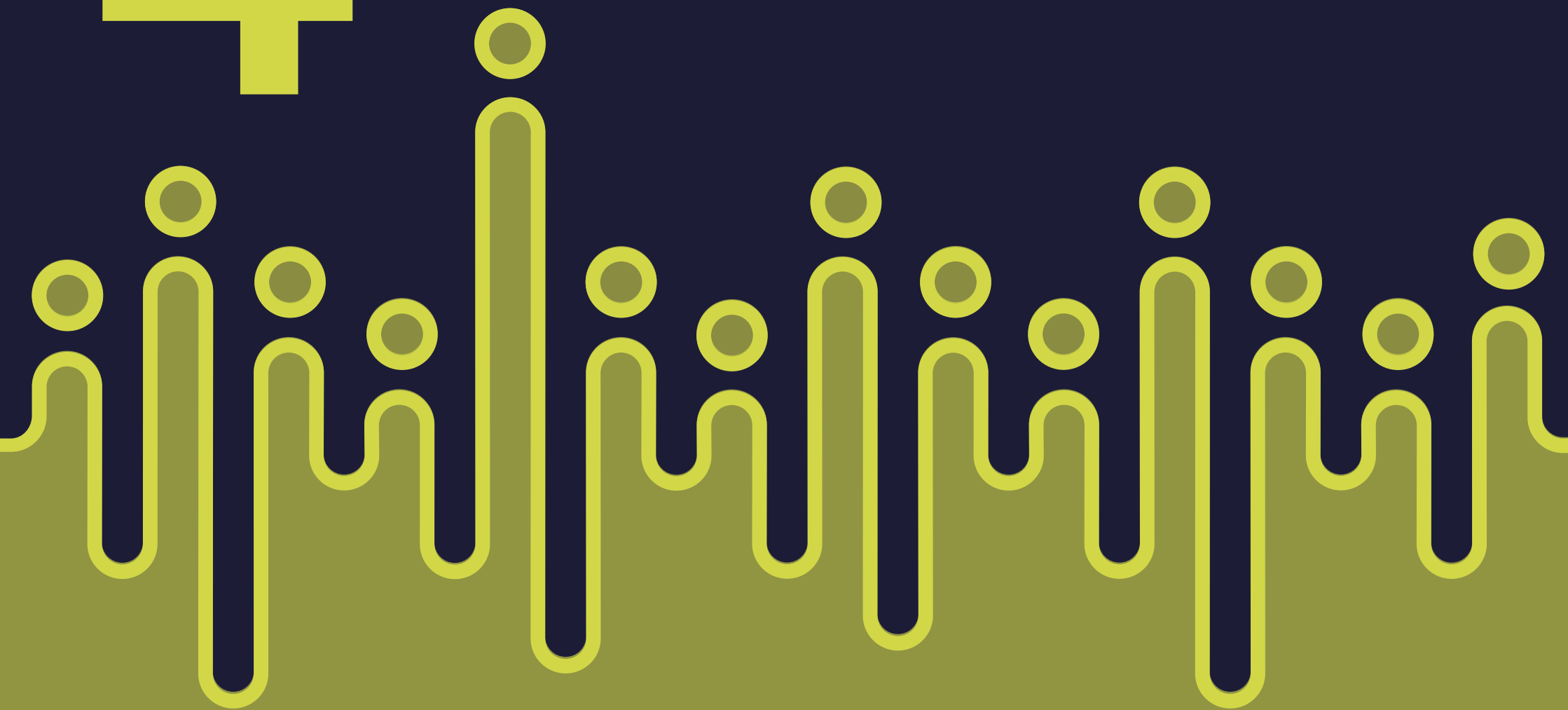
Many certainties that people have grown up with are disappearing in front of our eyes. If you only focus on the dangers, you lose people and you lose their faith in the future. Then people look for politicians that promise they can bring back the old status quo. Instead, positive, compelling vision for the future requires answers as to how to tackle these existential threats that we all face.

Experts also need to be able to explain why your long-term projection matters now. No politician is interested in what happens to our food security in 40 years.

The more diverse the people feeding in, the better. It is easy for policymakers to operate in silos and echo chambers. And in order to remain agile, in order to remain capable of taking decisions, I would place guarding our democracies as number one.

4

HOW TO FIX IT



Chapter 4. How to fix it

If humans have created existential risks, can human ingenuity also solve them?

Principles for solutions

Based on the considerations detailed above, the following principles have emerged on how to create sustainable approaches to problem-solving for existential risks:

- **Long-term approaches:** Embed long-term thinking and interests of future generations into policy, including through foresight, to help create preventative and anticipatory policy approaches.
- **Global cooperation:** Find pathways for international cooperation and multilateral

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The massive challenge with some of these existential threats is that both the threat itself and the actions needed to avoid it are considered in isolation.”

SOPHIE HOWE

approaches when the international system is likely to remain contested and competitive, rather than tending towards greater like-mindedness and convergence. On the positive side, growing awareness of existential risk could potentially be a motivating factor for re-energising and repairing multilateralism as a way of working within this contested context.

- **Fairness:** Issues of international equity and justice come up in all areas of existential risk. Defining and resolving these will inevitably be contentious – there will never be a complete consensus – but can't be ignored.
- **Harnessing technology:** Solutions need to go beyond governance and policy, to be embedded in how people design future technology, political, and social arrangements. Efforts to assess and address EDT risk need to clearly recognise opportunities presented by such technologies as well, including the role they could play in reducing and mitigating risks.
- **Preventative approach:** Prevent the worst, adapt to what you can adapt to.

The '6 Cs' where leadership is needed



- 1. CONCEPTS:**
Ideas, and innovation: new thinking needed



- 2. CAMPAIGNING:**
Communicating and showing leadership: taking ideas into action.



- 3. COLLABORATING:**
Coalition-building and compartmentalising: finding ways to work together across divides.



- 4. CRAFTING INSTITUTIONS:**
Treaties and laws: embedding solutions in multilateral and national governance.



- 5. CHANGING CALCULATIONS:**
Shaping economic, legal, and political incentives.



- 6. CHANNELLING TECHNOLOGIES:**
Using tech change for good.

These are all linked and overlapping. For example, the imperative to protect future generations starts off in the realm of concepts. Thanks to coalition-building and collaboration, it is becoming embedded in institutions (laws, constitutions, bureaucracies and budgets), which starts to change calculations (e.g. lawsuits become possible).

Concepts, ideas, and inventions

Tackling global catastrophic, existential and long-term risks needs to start with thinking differently, including by focusing more on skill-building in futures, foresight, and 'thinking the unthinkable' – looking at multiple possible futures, not just forecasts of a single future. At the expert level, research into existential risk is growing. For instance, Allfed food security expert Florian Jehn noted that awareness of some risks seemed to be growing.⁴⁰ As an example, in Germany, politicians had taken up the question of how agriculture would function if there was a catastrophic collapse of industry and electricity, after experts had worked to raise awareness of this as a real possibility.⁴¹

Growing awareness of climate change has led to a revolution in economic thought after decades of focus on primarily maximising growth. This includes new areas of study such as ecological economics, a transdisciplinary effort to capture the full impact of economic activity. Economists are now counting and measuring a wider range of things, for instance by finding ways to measure social or environmental value or destruction; in classical

economics these were simply dismissed as 'externalities' that were not relevant to the market.

There are similar questions about how far international security would need to be re-imagined for a world without nuclear weapons. Disarmament advocates have often envisaged a radically different peaceful world rooted in the peace movement. Today some nuclear policy experts are collaborating with futurists and design thinkers to envisage a future world without nuclear weapons – notably in the Horizon 2045 project by US-based non-profit organisations N Square and the Nuclear Threat Initiative. Conversely other initiatives focus on trying to stabilise deterrence or reduce risks within a broadly unchanged international security paradigm. The interconnected nature of these various catastrophic risks suggests that holistic systems-thinking is needed: concepts of human security, common security, comprehensive security, and positive peace can all be explored here.

Finally, more diverse perspectives on the global problems of existential risk are needed, since these are problems affecting everyone, and since global action is needed to

tackle them. The talent pool working on existential and catastrophic risk in general has been heavily concentrated in the UK and US, and among younger-generation men with a tech background. For example, although there is a great deal of feminist scholarship on specific risks such as climate change and nuclear weapons, there seems to be very little feminist scholarship on existential risks per se.

Campaigning and communicating for accountability and attention

Short-termism and avoidance on behalf of both governments and public stakeholders needs to be actively tackled with campaigning that reminds people of the issues and the potential for change. Existential risks also need to be seen as politically salient. Communication on existential risk needs to be framed to drive action and not just anxiety.⁴²

Once policies are agreed and adopted, active campaigning for action is still needed. A common theme heard in ELN discussions from those that have worked on international treaties, peace agreements, and UN resolutions is that reaching the formal agreement is just the beginning of the journey.



Emily McCormick / Alamy Stock Photo

Collaboration, coalition-building, and compartmentalisation

The need to address existential risks in a world of multiple geopolitical antagonisms will require radical collaboration across difference and division. This may require a degree of compartmentalisation in the form of willingness to move forward on one issue even if there are conflicts in other areas. It will require maintaining inclusive international organisations like the UN and OSCE, which bring together the non-like-minded. These organisations can sometimes facilitate collaboration

40 Interview, Okay Doomer "How To Save The World" episode

41 See the book *Imaginable* by futures specialist Wendy McGonagal for more on how pandemic scenario-building helped inform some of the Covid-19 policy response.

42 Further recommended resources including UCL Climate Communications, NTI Nuclear Narratives, Christopher Caldwell's *Substack* and Donal Crilly.

by creating spaces for diplomats to meet in small groups with informal 'corridor and coffee diplomacy'.

Our discussions explored some different views here. Some felt that certain governments just will not work to fix these problems – especially authoritarian ones – and that tackling authoritarianism and populism is necessary as a precursor to addressing existential risks. Others felt it was necessary to use whatever common ground was available.

Crafting institutions, treaties, and laws: Embedding solutions in multilateral and national governance

Leaders and movements will be essential to achieving the changes that are needed. To be sustainable, solutions to the world's most pressing challenges will need to be embedded in institutions and governance. This can happen at multilateral, national, international, regional, and even local levels – the latter was seen, for instance, in 2020 when numerous mayors in the US pledged that their cities would hold to Paris Agreement targets after President Trump pulled the US out of the agreement.

According to Florian Jehn of Allfed, who writes the Existential Crunch Substack; "[w]e now have more and more countries where the national risk registers actually look at global catastrophic risks. So, for example, in Switzerland, and in the UK, they think about what would happen in the event of a large volcanic eruption. What I find also encouraging is that more countries are trying basic democracy approaches like citizen assemblies, because these have quite a good track record of being forward-looking and wanting to change things for the better."⁴³

A growing trend to represent the interests of future generations holds promise for helping tackle existential risks. 86 of the world's 196 national constitutions now include some form of provision for the protection of the rights of future generations.⁴⁴

Changing calculations: economic incentives

New ideas on how to tackle existential risk then need to be translated into incentives for action, using regulations, resources, and metrics. For example, the concept of the

circular economy, which looks holistically at the life cycle of resources, has been applied in concrete terms to a number of areas of legislation, including EU regulation on deforestation-free products⁴⁵.

As another example, the practice of setting and measuring standards for the economic, social and governance (ESG) impact of companies has had a direct impact on private-sector behaviour. NEVER member Katie Duffy, who managed the climate change programme at British Expertise International, explains: "now there's a massive incentive to work towards your ESG goals to be sustainable, to set an example, because then you look like a better company. And the more sustainable you are, the more likely people are to fund you and to support you."⁴⁶ But are governments now relying too much on the private sector to finance climate action and preserve biodiversity?

How could the insurance concept of the 'protection gap' be applied to the security sector or to nuclear

war? Policy discussions about the future of arms control, taking place at a time when multilateralism is struggling, generally suggest that an arms control approach to EDTs will be based on 'soft' norms, such as codes of conduct and good practice, rather than 'hard' regulation. How could this translate into economic incentives that will influence the private sector?

Preparing for and tackling risks also necessitates a huge amount of data collection, monitoring signals of risks getting worse – or signals of progress. Early warning systems, data collection, and foresight capabilities are all relevant here.

Channelling technology

EDTs may be a source of existential risk but can also be harnessed to mitigate risks.

Solutions need to go beyond governance and policy, and to be embedded in how people design future technology, political, and social arrangements – harnessing technology, not just fearing it.

⁴³ Interview on Ok, Doomer, episode 6

⁴⁴ Renan Araujo and Leonie Koessler, "The Rise of the Constitutional Protection of Future Generations", Legal Priorities Project, LPP Working Paper No. 7-2021, 2021, tinyurl.com/mrp5m6fb, (accessed 15/01/2025).

⁴⁵ Interview, Okay Doomer climate episode

⁴⁶ Okay Doomer podcast, climate episode

INTERVIEW



SOPHIE HOWE
Wales's first
Commissioner for
Future Generations

Unless we look holistically, our actions will create new risks

Edan Simpson, NEVER project coordinator, interviews Sophie Howe, Wales's first Commissioner for Future Generations

We found in our work that there are quite a few different multilateral initiatives that are currently underway to tackle existential risk. But usually, it's only the separate aspects of existential risk, whilst there are very few initiatives that deal with the intersections between these risks. How do you think the international community can take a more holistic or systemic approach?

"The massive challenge with some of these existential threats is that both the threat itself and the actions needed to avoid it are considered in isolation. In a worst-case scenario, that means that we see risks or knock-on negative consequences in other policy areas.

For instance, in terms of the action that is being taken on climate change, some of the things that are being done have a real potential to impact negatively on the poorest in society. Unless we're looking holistically, our actions will create added risks for us.

The flip side of that is that if we're not thinking about things holistically, we're also missing opportunities to do positive things. We need to make our interventions work harder for people, planet, and well-being. This is why 'how' we take decisions is of critical importance.

In Wales, there were five principles in our legislation in terms of how our government and others were required to take decisions.

They had to consider the long-term impact of the things that they do, across seven long-term wellbeing goals, and show how they'd considered future generations in their decision making. They had to seek to prevent problems from occurring or from getting worse. They had to integrate their actions. They had to work together. And they had to involve citizens.

Now, the minister who passed that legislation in Wales described it as the common-sense act, because if you swept away every bit of governance, those five principles make for common sense decision making.

But why do we need to legislate for common sense? And why do we need a future generations declaration to do some of that stuff at a UN and a multilateral level? It's because common sense, sadly, isn't that common, particularly not when we're dealing with politics and public policy. So the UN declaration for future generations is also calling on the UN infrastructure itself to get its own house in order.

Certainly, in my role in Wales, I spent an inordinate amount of time introducing civil servants in one department to civil servants in another department to say, actually, you know, how are you bringing all of this together? Yes, we've got a long-term plan to build low carbon affordable housing, but we can't do that if the skills department is not developing the skills pipeline of people to come in and fill those jobs.

Things only start to move if there is that level of accountability and challenge and grit in the system. Otherwise, there's a real risk that the public sector and public policy turns this into a big bureaucratic entity or enterprise of churning out a load more reports that people never read."



"Ok, Doomer!"
The NEVER Podcast

INTERVIEW



TACAN ILDEM
Former Turkish
ambassador to the
OSCE and NATO

To address emerging and disruptive technologies, arms control will have to go beyond traditional approaches

Ezgi Yazicioglu interviews Tacan Ildem, former Turkish ambassador to the OSCE and NATO

When we talk about threats, we must also talk about legally and politically binding instruments in the field of arms control and disarmament, such as CFE, Open Skies Treaty and the Vienna Document which have become dysfunctional. What could be done in this field?

Those arms control instruments that you referred to have unfortunately collapsed or become dysfunctional. This requires a collective and collaborative effort to fix it. While facing hot conflicts, people have a tendency to say, “well, this is not the right moment to address such issues”. However, we should not forget that the discussions on how to create a new global system (the UN) started even at a time when World War II was ongoing. Therefore, it would be pertinent to take the 50th anniversary of the Helsinki Final Act, to be commemorated this year, as an opportunity to reflect on the future of European security.

This important document enumerates fundamental principles that still underpin the European security architecture. Some of those unnegotiable principles, first and foremost respect for sovereignty, independence and territorial integrity of states, unfortunately, have been violated with the illegal occupation of Ukraine. It will not be enough to attain a ceasefire and peace agreement that will end the war in Ukraine within an abstract framework limited to Ukraine.

We should remind ourselves that Ukraine’s security, Europe’s stability and Russia’s relations with the



continent are intertwined. That is why in a parallel format to the peace negotiations on Ukraine, it is necessary to examine how arms control and CSBMs, which are the foundations of the European security architecture, can be improved and agreed upon. The realities dictated by geography and history require the West to have a long-term goal of ensuring Russia to return to the security order supported by the fundamental principles enshrined in the UN Charter and the founding documents of the OSCE. This will, of course, depend on the post-war security environment and on how Russia chooses to act.

Any attempt to project a vision for future security arrangements in Europe should tackle the military drivers of a potential conflict, including military activities or exercises in strategically sensitive locations; enhanced readiness; force build-up; violation of airspace or maritime borders; proximity of forces or capabilities; deployment locations of long-range offensive weapons and threats to sensitive communication/connection lines.

Innovative conventional arms control measures should increase warning and decision-making time, make surprise attacks more difficult and reduce general tension. While determining new restrictive measures for any future conventional arms control regime for Europe, maintaining numerical limitations, like in the past, may not be enough. Therefore, emerging and disruptive technologies, AI being *primus inter pares*, and their impact on the future arms control regime should be part of the negotiation process.

PODCAST



JASPER GÖTTING
From 'Okay,
Doomer'



"Ok, Doomer!"
The NEVER Podcast

From good solution to even better

Jasper explains how a "pathogen-agnostic" approach to fighting disease can help to reduce the risks from possible new pathogens while also protecting people against the many diseases that people already fight.

"The increasing democratisation of biotech can very plausibly expand the space of potentially pandemic pathogens even further. That means defences that are as pathogen agnostic and as broadly defensive as possible. So, say a rapid test catching flu and coronaviruses is good. A metagenomic sequencing based test which identifies and characterises every piece of genetic information in a sample is even better.

An mRNA vaccine platform that can be tuned to a particular pathogen is very good, as we've seen with COVID but a broadly available antiviral medicine that helps against the number of the 27 or so viral families infecting humans would be even better.

“

This win-win approach to designing innovative technology helps to address a key political dilemma related to priorities, justice and international development: how much should the world invest in preparing for potential new biological threats, versus fighting the diseases that we already know how to cure, which survive mainly because of poverty?"

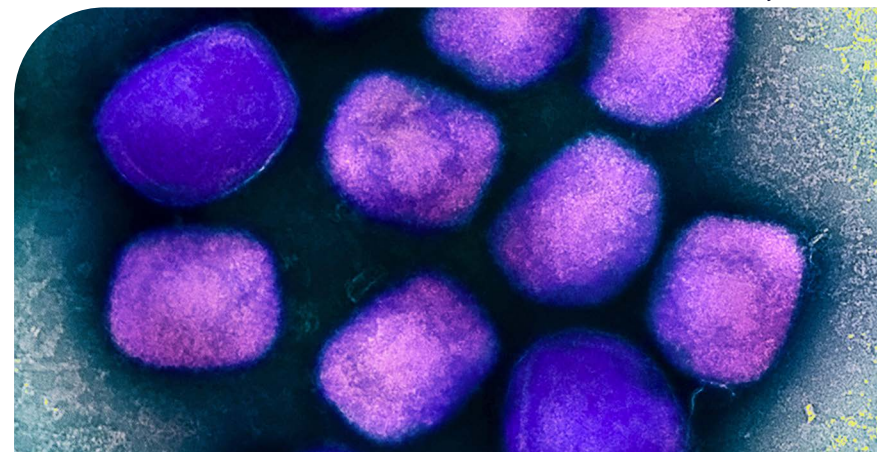
And the same for physical defences. An N95 mask supply is very good, but absolutely infection proof super PPE that would allow essential workers to keep the energy grid or food supply running without worrying about getting mega flu would be even better.

And opening windows to dilute virus laden air again is very good. But fully infection resilient indoor environments using, for example, germicidal ultraviolet air disinfection systems are again even better.

And we can still prepare for likely pandemic pathogens, for example, the seasonal flu, using the old-fashioned way by, for example, stockpiling vaccines. But the more pandemic defences are pathogen agnostic, the better we are really prepared for any kind of pandemic."

This win-win approach to designing innovative technology helps to address a key political dilemma related to priorities, justice and international development: how much should the world invest in preparing for potential new biological threats, versus fighting the diseases that we already know how to cure, which survive mainly because of poverty?

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Conclusions

Humans now face a number of existential or catastrophic risks – risks that could have a devastating global impact or even lead to the extinction of humanity itself. Humanity has survived many catastrophes in history, but has just a few decades of experience in dealing with manmade existential threats, stemming from our own inventions and behaviour. There is not yet an adequately serious, committed and comprehensive response to match the scale of the challenges. Extensive progress has already been made to conceive, design and negotiate possible solutions and mitigations – starting with arms control agreements, international laws and international diplomacy to mitigate

nuclear-weapons risks, the first existential risk that humanity has faced – and moving onto an inclusive global process to attempt to manage climate change. Much more needs to be done to implement what is already agreed, and to design solutions to fast-moving new challenges resulting from high-speed technological change. Experts working on all these issues can benefit from exchanges across countries and issue areas, and understanding the politics and psychology that explain why people often deny or delay the necessary responses. Solutions need to be designed for an imperfect, impatient and conflict-ridden world.

Further resources and project background

The NEVER network comprises young European experts who work on issues of existential and catastrophic risks, crossing different areas that are often siloed and usually dominated by Anglo-American perspectives. The European Leadership Network undertook a two-year programme to enrich their thinking and careers by providing them with contacts, mentoring and meetings with senior leaders in security policy and nuclear policy, while they have enriched the nuclear and wider security debates organised by ELN by bringing fresh perspectives and new-tech expertise.

Specific activities included a series of monthly virtual meetings, established a mentoring programme, a series of publications and podcasts, and integrating NEVER members with wider ELN networks and projects for intergenerational dialogue.

Read more here...

europeanleadershipnetwork.org/new-european-voices-on-existential-risk/ and check out the NEVER podcast, [Ok, Doomer!](#) on all major podcast platforms

Commentaries:

- **Konrad Seifert, Anemone Franz, Emil Nafis Iftekhar, Arthur Duforest & Joel Christoph** – Existential threats beyond the bomb: emerging disruptive technologies in the age of AI
europeanleadershipnetwork.org/commentary/existential-threats-beyond-the-bomb-emerging-disruptive-technologies-in-the-age-of-ai/
- **Michaela Higgins Sørensen** – Why aren't young people engaged in nuclear disarmament?
europeanleadershipnetwork.org/commentary/why-arent-young-people-engaged-in-nuclear-disarmament/
- **Shane Ward and Eva Siegmann** – Beyond nuclear deterrence: New approaches for tackling non-nuclear strategic threats
europeanleadershipnetwork.org/commentary/beyond-nuclear-deterrence-new-approaches-for-tackling-non-nuclear-strategic-threats/

- **Kim Westerich-Fellner** – Nuclear disarmament verification and the NPT: De-politicising the political
europeanleadershipnetwork.org/commentary/nuclear-disarmament-verification-and-the-npt-de-politicising-the-political/
- **Nicolò Miotto** – 3D printing and WMD terrorism: a threat in the making?
europeanleadershipnetwork.org/commentary/3d-printing-and-wmd-terrorism-a-threat-in-the-making/
- **Rebecca Donaldson** – Sounding the alarm on AI-enhanced bioweapons
europeanleadershipnetwork.org/commentary/sounding-the-alarm-on-ai-enhanced-bioweapons/
- **Nicolò Miotto** – The potential terrorist use of large language models for chemical and biological terrorism
europeanleadershipnetwork.org/commentary/the-potential-terrorist-use-of-large-language-models-for-chemical-and-biological-terrorism/
- **Jakob Gomolka** – Unstable systems: Why geoengineering will solve neither climate change nor climate geopolitics
europeanleadershipnetwork.org/commentary/unstable-systems-why-geoengineering-will-solve-neither-climate-change-nor-climate-geopolitics/
- **Julie Lübken** – The EU's Artificial Intelligence Act – a golden opportunity for global AI regulation
europeanleadershipnetwork.org/commentary/the-eus-artificial-intelligence-act-a-golden-opportunity-for-global-ai-regulation/
- **Eva Siegmann** – Deterrence without destruction: Rethinking responses to biological threats
europeanleadershipnetwork.org/commentary/deterrence-without-destruction-rethinking-responses-to-biological-threats/

Podcasts:

- **The End of the World for Beginners**
europeanleadershipnetwork.org/commentary/episode-one-the-end-of-the-world-for-beginners/
- **Nuclear War: What is it good for?**
europeanleadershipnetwork.org/commentary/ok-doomer-the-never-podcast-nuclear-war-what-is-it-good-for/
- **Climate Change: A hot topic**
europeanleadershipnetwork.org/commentary/ok-doomer-the-never-podcast-climate-change-a-hot-topic/
- **Biological threats: Going viral**
europeanleadershipnetwork.org/commentary/ok-doomer-the-never-podcast-biological-threats-going-viral/
- **Fake brains and killer robots**
europeanleadershipnetwork.org/commentary/ok-doomer-the-never-podcast-fake-brains-and-killer-robots/
- **How to save the world**
europeanleadershipnetwork.org/commentary/ok-doomer-the-never-podcast-how-to-save-the-world/
- **Nukes and new tech**
europeanleadershipnetwork.org/multimedia/ok-doomer-the-never-podcast-nukes-and-new-tech/

Event Summaries

- **Inaugural meeting with Toby Ord, Des Browne and Zeynep Alemdar**
europeanleadershipnetwork.org/event/new-european-voices-on-existential-risk-never-inaugural-meeting/
- **NEVER: June 2023 meeting on mentoring**
europeanleadershipnetwork.org/event/never-june-meeting/
- **NEVER: August 2023 AI Roundtable**
europeanleadershipnetwork.org/event/never-ai-roundtable/
- **NEVER: September 2023 pre-COP meeting on Climate politics and great power competition with Sir Laurie Bristow**
europeanleadershipnetwork.org/event/never-climate-politics-and-great-power-competition/
- **NEVER: November 2023 meeting on biological threats with Angela Kane**
europeanleadershipnetwork.org/event/never-biological-risks/

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