

# Message from the President and Executive Director

This has been a significant year for FLI. In 2021, FLI began transitioning from a small and largely volunteer-run organization with a bare handful of staff into a significant international NGO with a variety of programs and initiatives around the world. This continued in 2022 with a major organizational restructuring, hiring of new staff, and creation of new significant initiatives.

Several developments in the world helped drive FLI's strategic goals. The Ukraine war and renewed attention to the risk of nuclear war called for important relevant scientific information – such as about nuclear winter – to be made available to policymakers and the public. Along with supporting scientists in having their voices heard on nuclear issues, FLI celebrated the contributions of pioneers in the scientific understanding of the grim effects of nuclear war, and kicked off a new scientific research program to bring those studies up to date.

2022 also saw the advent of real, working, general-purpose AI (GPAI) systems. From OpenAI's ChatGPT to Google's PaLM and GATO, general AI – a vague far-future notion for most of AI's history – suddenly started to come into sharp focus. In tandem, FLI's pioneering AI policy efforts, active since 2017, both scaled up and focused squarely on GPAI, with critical engagement in the in-development EU AI act and other major AI governance initiatives.

Although focused on large-scale risk, FLI has since its inception carried a dual mission: both to recognize and decrease the risks of transformative technology and also to help humanity leverage capabilities of those technologies to build a great future. In 2022 FLI kicked off major initiatives – including a world-building competition – and a new internal division focused on forecasting and envisioning possible futures, to help humanity make wise decisions.

The world faces serious, perhaps unprecedented, challenges over the coming decade, and it will take all our collective intelligence, wisdom, and coordination to overcome them and build the future we all want. We are extraordinarily grateful to FLI's staff, sponsors, supporters, and partners in working with us to help empower humanity to succeed.

Anthony Aguirre
Executive Director,
Future of Life Institute

Max Tegmark
President,
Future of Life Institute

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# **Mission**

The Future of Life Institute's mission is to steer transformative technology towards benefiting life and away from extreme large-scale risks. We believe that the way powerful technology is developed and used will be the most important factor in determining the prospects for the future of life. This is why we have made it our mission to ensure that technology continues to improve those prospects.

The mission of the Future of Life Institute, established in 2015, is to steer transformative technology towards benefitting life and away from extreme large-scale risks.

In pursuit of this mission, we support the development of institutions and visions necessary to manage world-driving technologies and enable positive futures. We seek to reduce large-scale harm and existential risk resulting from accidental or intentional misuse of transformative technologies.



# **How We Work**

Towards these aims, FLI engages in a number of initiatives and strategies, including:

Our **Policy team** works to improve governance of transformative technologies through research and advocacy. We seek to bridge the gap between the experts who understand transformative technologies and the public institutions with the legitimacy and means to govern them.

Our **Futures program** aims to help humanity aim towards the beneficial outcomes made possible by transformative technologies. By employing tools like storytelling, worldbuilding, scenario planning, research, and forecasting, we explore possible futures and determine actionable pathways. We then pinpoint the essential policies, decisions, and institutions needed to navigate these paths, and how best to deliver them. The program seeks to engage a diverse group of stakeholders from different professions, communities, and regions to shape our shared future together.

Our **Outreach efforts** works to help policymakers, technologists and the general public understand the challenges and opportunities we face. This year, we relaunched our namesake <u>podcast</u> series, which features the FLI team in conversation with prominent researchers, policy experts, philosophers, and a range of other influential thinkers. We published an open letter against reckless nuclear escalation and use. The letter garnered over one thousand signatures, including 7 Nobel laureates.

Our **Grantmaking** provides financial support for promising work aligned with our mission. Tackling extreme, large-scale risks takes a community. We believe this area is extremely under-resourced and we see tremendous opportunity for grantmaking.



In 2022, FLI engaged with policymakers and helped shape important legislation in both Europe in the US.

FLI was deeply involved in advocacy surrounding the EU's AI Act. This legislation will both define AI regulation in Europe and serve as a model for other regulators across the globe. Our President, Max Tegmark, provided testimony at the European Parliament's hearing on the Act, specifically addressing General Purpose AI. Meanwhile, our Executive Director, Anthony Aguirre, participated in a panel by the Centre for Data Innovation, discussing the ideal approach for regulating general-purpose AI systems. We were also invited to brief the German Parliament defense committee.

Across the Atlantic, we contributed to the shaping of the U.S. Global Catastrophic Risk Mitigation Act. This bipartisan bill aims to fortify the U.S. government's readiness for high-impact events, irrespective of their likelihood. It directs the President to establish an interagency committee to assess global catastrophic risks and the adequacy of government continuity plans.

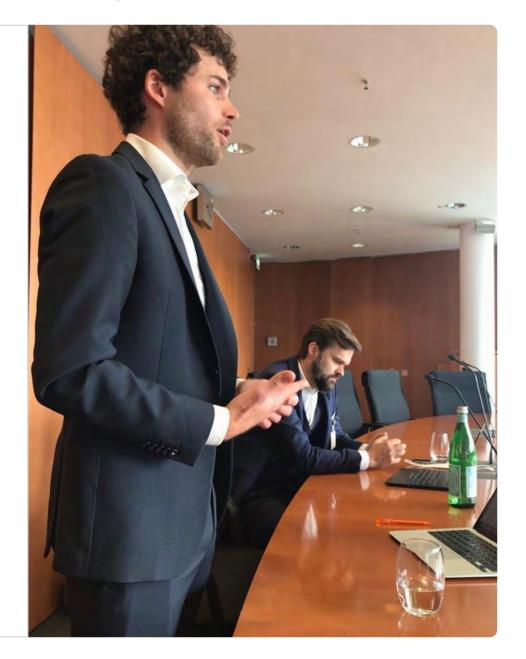
Furthermore, our collaboration with the National Institute of Standards and Technology (NIST) bolstered the <u>Al Risk Management Framework</u>. We emphasized the urgency of addressing extreme risks, maintaining Al system loyalty, and managing general-purpose systems.



# Highlight: Advising the EU Presidency on the EU AI Act

Over the last few years, FLI has become a crucial contributor to the development of the EU's AI Act. We have produced focused policy research papers on general-purpose AI, manage a widely-visited AI Act website that has attracted over 250,000 unique visitors, and operate a biweekly newsletter on the AI Act with nearly 14,000 subscribers. We're especially proud of our instrumental role in ensuring that general-purpose AI systems (GPAIS,) like GPT-3, are adequately addressed within the Act.

In August 2021, we submitted recommendations to the European Commission on the regulatory challenges posed by general-purpose AI systems (GPAIS.) Regrettably, the EU presidency, then under Slovenia, introduced provisions to exclude GPAIS from the AI Act. We persevered, continuing to educate policymakers about the unique risks from GPAIS. In May 2022, EU presidency, now led by France, pivoted to introduce requirements for GPAIS developers. These pivotal provisions were included in the AI Act, which the European Parliament passed in June 2023.



# **Futures**

## Worldbuilding

In 2022, FLI launched the inaugural Worldbuilding Contest.
This initiative invited global teams to compete for \$100,000 in prizes by depicting detailed visions of a plausible, and aspirational future, alongside the path to realize it. Contestants submitted a timeline of events from today to 2045, two short stories, a media piece, and in-depth answers to questions about their world. The criteria stipulated a future with strong artificial intelligence, free from major wars and catastrophes.

We were delighted by the response: 144 submissions from 44 countries, comprising 352 individual participants. Notably, this included 7 youth teams, mentored by educators or parents. The submissions contained a range of imaginative solutions to daunting global problems. 18 teams were recognized with prizes.



#### 2022 Future of Life Award

The <u>Future of Life Award</u> recognizes unsung heroes who have made a significant contribution to the future of life. With our 2022 award, we were thrilled to honor 8 individuals for their role in reducing the risk of nuclear war by developing and popularizing the science of nuclear winter: John Birks, Paul Crutzen, Jeannie Peterson, Alan Robock, Carl Sagan, Georgiy Stenchikov, Brian Toon and Richard Turco.

Both Ronald Reagan and Mikhail Gorbachev credited the discovery of nuclear winter with helping end the Cold War nuclear arms race. The 2022 award ceremony took place against the backdrop of states meeting to review the Treaty on the Non-Proliferation of Nuclear Weapons, a fundamental pillar supporting nuclear disarmament and non-proliferation. Reflecting on this, FLI President Max Tegmark commented, "in these turbulent times, the more decision-makers understand about nuclear winter, the less likely they are to make reckless decisions that may cause it."



# **Collaboration with Hollywood Health & Society**

We partnered with Hollywood Health & Society (HH&S) to harness the transformative potential of storytelling for a brighter future. FLI Executive Director, Anthony Aguirre, and Director of the Futures Program, Emilia Javorsky, attended a <u>live panel event</u> called 'From Slaughterbots to Utopias', hosted by HH&S. The event explored new visions for the future and the risks and benefits of AI.

FLI also partnered with HH&S and the Writers Guild of America East to launch the <u>BlueSky Screenwriting Competition</u>. The competition invited screenwriters to craft scripts set in a positive future, reflecting themes of racial equity, climate change mitigation or adaptation, advancements toward peace, and incorporating the beneficial use of Al. The contest received nearly 100 inspiring submissions. Writer Oriana Schwindt won first prize for her pilot about a murder mystery in a small utopian town in Pennsylvania.





# **Grants**Future of Life Institute – 2022 Annual Report

### **Grants**

In 2022, we announced our first class of Vitalik Buterin Fellows in Al Existential Safety. We selected 8 <a href="PhD Fellows">PhD Fellows</a>: Usman Anwar, Stephen Casper. Xin (Cynthia) Chen, Erik Jenner, Zhijing Jin, Erik Jones, Alexander Pan, and Johannes Treutlein. Our first <a href="Postdoctoral Fellow">Postdoctoral Fellow</a> was Nisan Stiennon. We are committed to providing tuition, as well as a generous stipend and research fund throughout the Fellows' studies. FLI organizes opportunities for the Fellows to meet each other and other Al researchers committed to keeping Al safe and beneficial.

Following the 2022 Future of Life Award for those that discovered nuclear winter and brought it to the world's attention, we announced an RFP focused on the Humanitarian Impacts of Nuclear War. The RFP was focused on growing the evidence-based research of the consequences of nuclear war on topics such as urban fires, impacts of smoke, agriculture, and food systems.

On the following page we present a selection of our grants made in 2022.

#### **Wise Ancestors**

Amount recommended: \$1,113,685

Wise Ancestors is focused on conserving biodiversity through genomic sequencing and biobanking projects that center Indigenous Peoples and Local Communities as project co-developers, respect Indigenous rights and local interests, and lead to fair and equitable benefit sharing that includes returning land stewardship to Indigenous Peoples and Local Communities.

#### **University of Cambridge**

Amount recommended: \$1,000,000

Centre for the Study of Existential Risk (CSER) is an interdisciplinary research centre within the University of Cambridge that studies existential risks, develops collaborative strategies to reduce them, and fosters a global community of academics, technologists and policymakers working to safeguard humanity.

#### **Foresight Institute**

Amount recommended: \$1,000,000

Founded in 1987, Foresight Institute supports the beneficial development of high-impact technology to make great futures more likely. In this spirit, Foresight Institute runs the Existential Hope project, which aims to bring together and create resources, projects and organizations to help onboard and coordinate a global community across future-positive organizations and projects.

#### **University of Southern California**

Amount recommended: \$170,000

Hollywood, Health & Society (HH&S) is a program of the University of Southern California Annenberg Norman Lear Center that provides the entertainment industry with accurate and up-to-date information for storylines on health, safety and security. FLI is particularly interested in their work to educate on i) the risks of nuclear weapons, ii) the risks of irresponsible uses of AI, such as autonomous weapons, and iii) the development of positive visions of the future with responsible AI development.

#### **University of California at Berkeley**

Amount recommended: \$450,000

The Al Policy Hub is housed at the Al Security Initiative at the University of California, Berkeley's Center for Long-Term Cybersecurity (CLTC), and the University of California's CITRIS Policy Lab at the Center for Information Technology Research in the Interest of Society and the Banatao Institute (CITRIS). The UC Berkeley Al Policy Hub is training a new generation of Al policy talent to shape the future of artificial intelligence in the public interest. This prestigious fellowship program strengthens interdisciplinary research approaches to Al policy while expanding inclusion of diverse perspectives. The Hub supports annual cohorts of graduate student researchers who conduct innovative research and make meaningful contributions to the Al policy landscape.

# **Finances**

FLI is a mission-driven organisation and continually aims to diversify its funding. Since our founding in 2014, we have received over 1,500 donations of various sizes from a wide variety of donors.

In 2021, computer programmer Vitalik Buterin provided FLI with a large and unconditional donation that in part serves as an endowment and helps to guarantee our independence.

#### Our income in 2022

FLI only engaged in limited fundraising in 2022 and our total income that year was about 10,000 USD. The difference between income and expenditure was covered out of our endowment.

# **Expenditures for FLI activities 2022**

Category	2022 Expenditure
Personnel	62%
→ Grant review & oversight, research, management, other	28%
→ Program	19%
⇒ EU advocacy	10%
→ US advocacy	5%
Media and outreach	15%
Awards and prizes	11%
Legal and other Professional services	4%
Admin, travel, and other	4%
Events	3%
TOTAL 2022 Expenditure	\$4.4 million

### **Team**

#### **Board**



Anthony Aguirre, Executive Director and Board Secretary



Jaan Tallinn, Board Member



Max Tegmark, President



Meia Chita-Tegmark, Board Treasurer



Victoria Krakovna, Board Member

#### Staff

Akhil Deo, Social Media Manager

Andrea Berman, Grants Manager

Anna Hehir, Program Manager for Autonomous Weapons Systems

Anna Yelizarova, Project Manager

Blake Pierson, Director of Communications, Outreach & Operations

Carlos Ignacio Gutierrez, Policy Researcher

Claire Boine, Policy Researcher

Claudia Prettner, EU Representative

David Nicholson, Manager, Future of Life Award

Emilia Javorsky, Director of Futures Program

Georgiana Gilgallon, Communications

Gus Docker, Podcast Host & Director

Jared Brown, Director of Policy

Lucas Perry, Podcast Host

Mark Brakel, Director of Policy

Richard Mallah, Technical Al Consultant

Risto Uuk, Policy Researcher

Taylor Jones, Website Manager

Will Jones, Editorial Manager

#### General inquiries

contact@futureoflife.org

#### Policy

policy@futureoflife.org

#### **Futures**

futures@futureoflife.org

#### Grants

grants@futureoflife.org

#### Press

press@futureoflife.org

