Strategic Plan

2021 – 2024

Mission

We shape technology **for public benefit**
by advancing sciences of **connection and integration**

Vision

A world where **humanity flourishes** through **interconnected systems and processes** that enable **cooperation** on complex issues with **integral consideration** of the **holistic societal impact**

Plan

1. **Create a new mathematical systems science** that rigorously addresses fundamental questions about the nature of communication, cooperation, and integrated cognition.
2. **Deploy this science through building publicly-oriented tools**, including software and user interfaces, to create long-term, sustainable technology and social structures that provide a foundation for solving global problems such as safe AI or coordination around climate change.
3. **Ensure public benefit from this new technology** through anticipation and analysis of its societal impacts and through public engagement.

To pursue this plan for impact, we highlight four interdependent strategic goals. They concern (1) fundamental research, (2) societal impact, (3) ethical action, and (4) institutional strength. Each goal is given equal emphasis and is tightly intertwined with all others; we can only achieve our mission through success in all four areas.

Goal 1: Advance a mathematical systems science

A. **Establish new, practical understandings of systems**

We will develop foundational mathematical theories, based in but not limited to category theory, illuminating the nature of communication, cooperation, and integrated cognition. Research will be coordinated by an internal scientific strategy team, and progress validated by an external council of world-recognised experts.

B. **Widely disseminate our research findings**

Each year we will double the number of Topos research papers presented in top-tier peer-reviewed open-access journals, conferences, and seminar venues, starting from a baseline of 10 papers and 20 talks in 2021.

C. **Build an international community of experts**

By 2024, we will establish two active, highly interconnected research campuses each with 20 to 30 staff. The first campus will be in Berkeley, USA, and the second in Oxford, UK. This community will be extended with international collaborations via in-person events, virtual seminars, and visiting fellows from academia, industry, and government.

Goal 2: Impact society via systems technology

A. **Build practical, user-oriented computational tools**

Based on our mathematical systems research and in dialogue with user communities, we will create publicly-available and non-proprietary computational tools for integrating data, models, knowledge, and decisions.

B. **Foster partner communities that use our tools to address critical societal issues**

We will collaborate with practitioners to demonstrate the efficacy of our tools in solving large-scale systems problems, in fields including epidemiology, climate science, systems engineering, and artificial intelligence. By mid-2023, a Topos-developed tool will be best practice for solving a problem in one of these fields, and pilot programs will be established in at least two others.

C. **Make our systems science and technology accessible through education and outreach**

By 2024, we will launch programs for learning how to use our systems science and technology at all levels, from general public, to school and university students, to practicing professionals. By 2024, we target 1,000 participants through hands-on training programs, and 50,000 viewers/readers annually, with an emphasis on reaching international and underrepresented groups.

D. **Improve public understanding about the present and potential societal impacts of systems technology**

We will publish general-audience materials on potential societal impacts of emerging science and technology, especially that developed by Topos, as well as advise public interest and government groups. These materials will relate both opportunities to transform technology and society for public benefit, and potential risks and strategies for their mitigation.

Goal 3: Forge robust ethical and prosocial practices

A. **Embody active reflection on societal impacts in the research process**

By consulting expertise on present impacts of science and technology on society, we will examine what it means to, and how to, do good through our scientific work. By the end of 2022, an in-house impact and ethics team will take charge of incorporating the lessons into decision-making processes, internal training, and research strategy at Topos.

B. **Institute organisational safeguards and oversight**

We will establish an independent audit committee to ensure progress toward and accountability in having positive social impact. Responsibilities will include evaluation of funding sources, external relationships, and societal consequences of our work.

C. **Lead new standards for ethical and prosocial practice in technology organisations**

We will exemplify a new model for integrating ethical practices into the development of technologies and systems. In particular, we will publicly and transparently report our work developing our scientific culture, training, values, and policies.

D. **Ensure representation and access in the Topos community**

We will ensure that our staff at all levels reflects the population that is affected by our work. Our senior leadership will reflect a population half of which is female, and our staff teams will reflect the demographic and economic diversity of their local countries. In particular, we will establish procedures to recruit and nurture junior and senior talent across a wide range of social groups, and to create an inclusive culture.

Goal 4: Nurture a thriving organization

A. **Create a cohesive team with clarity of purpose**

We will build a team that is strongly aligned in pursuit of our mission, transparently respects all contributions to Topos, including those less traditionally visible, and supports each individual's professional and personal lives.

B. **Build principled, transparent, and effective organizational structures that continuously improve**

We will constantly evaluate and improve the structures we use to work together, including reporting and management structures, meeting routines, feedback structures, and decision-making frameworks.

C. **Establish robust organizational oversight**

By 2023, we will expand and diversify our governing board, growing it to 5 – 7 members with expertise across key aspects of nonprofit science and technology organisations. We will also establish a working advisory council that can assist across all facets of Topos.

D. **Ensure financial health and stability**

We will develop a diverse, stable revenue model capable of supporting Topos activities and growth. This will be grounded in philanthropic giving, and further supported by government and industry grants.