

# 2022 Activity Report

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# Contents

<b>1</b>	<b>Forewords</b>	<b>6</b>
<b>2</b>	<b>2022 at a glance</b>	<b>8</b>
<b>3</b>	<b>GESDA Foundation: Why? What? How?</b>	<b>10</b>
<b>4</b>	<b>2022 highlights</b>	<b>14</b>
	4.1. Major milestones	
	4.2. Key results	
	1. GESDA's mandate extended for 10 years	
	2. 2022 GESDA Science Breakthrough Radar®	
	3. 2022 Geneva Science and Diplomacy Anticipation Summit	
	4. The Open Quantum Institute	
	5. The Global Curriculum on Science and Diplomacy	
	6. Other Solution Ideas in preparation	
	7. The first Geneva Science Diplomacy Week	
	8. The Youth and Anticipation Initiative	
	9. The Human Right to Science Initiative	
	10. GESDA launches its Impact Forum	
	11. Effective partnerships for renewed multilateralism	
	12. Increased visibility and global reach of GESDA	
<b>5</b>	<b>2019 - 2022 GESDA pilot-phase in facts and figures</b>	<b>50</b>
	5.1. Scientific anticipation	
	5.2. Diplomatic acceleration	
	5.3. Translation into action and the Impact Fund	
	5.4. Global visibility	
<b>6</b>	<b>Governance, compliance, finance</b>	<b>60</b>
	6.1. Governance	
	6.2. Compliance	
	6.3. Finance	

# 1 Forewords



**Peter Brabeck-Letmathe**

## By Chairman Peter Brabeck-Letmathe & Vice Chairman Patrick Aebischer

When we launched GESDA three years ago, we were tasked by our Founders with creating an instrument of anticipation and action by which the various international actors can take up the challenge of acting at the same pace as scientific and technological acceleration.

The project of an Open Quantum Institute that was presented at our annual Summit in October 2022 is a concrete example of GESDA's work to use anticipation as a catalyst between science and diplomacy.

The goal of the Open Quantum Institute will be to broaden the circle of beneficiaries of scientific advances that are expected in this field at 5, 10, 25 years. The way to achieve it is to define in advance and implement use cases that will help address more quickly some of the challenges that people, society and our planet are facing.

So far, a task force of twelve academic institutions, twelve permanent representatives of governmental missions, nine international organizations, eight quantum companies and two global foundations have been bundling forces with GESDA to design the project. Based on this work, a detailed feasibility study will be finalized till October 2023.

Even if some of our fundamental paradigms – accessing data, creating shared knowledge, or trusting information – face significant challenges due to the current geopolitical situation, we still believe that anticipating the uses of science remains a path towards a more effective multilateralism, especially for the implementation of the undisputed Sustainable Development Goals 2030 of the UN.

By extending our mandate to the next 10 years, the Swiss and Geneva authorities have confirmed that they too believe that GESDA is becoming an honest broker of initiatives that can help strengthen science diplomacy and multilateralism thanks to anticipation.

We are extremely grateful for their trust and support. And deeply committed to enhancing our efforts to help emerging science play a key-role in solving the planet's challenges.



**Patrick Aebischer**

## Forewords



**Stéphane Decoutère**

## By Secretary General of the Board Stéphane Decoutère & Chief Executive Officer Sandro Giuliani

From an operational point of view, 2022 will remain in our memory as the year in which GESDA Foundation successfully closed its three-year start-up phase.

Therefore, this Activity Report do not only recap the highlights of 2022 but also outlines with facts and figures the different steps we took during the past 36 months.

Our journey started In December 2019 when our Board of Directors released the Foundation six-point Roadmap which the executive team has been implementing consistently since then.

In 2020, we constituted GESDA communities of practice by creating our Academic and Diplomacy Forum.

In 2021, we were able to disclose our two first products: the GESDA Science Breakthrough Radar® and the Geneva Science and Diplomacy Anticipation Summit. As of today, 1200 scientists and 500 diplomats have been contributing to the first two editions of the Radar, We would like to extend a warm thank you to our Founders and all our partners that helped us implement our vision, i.e. "use the future to build the present".

In 2022, we added several initiatives and presented at our second summit the first concrete ideas of solutions based on our GESDA Science Breakthrough Radar®.

On September 10, 2022, our Foundation entered its scale-up phase 2022-2032.

We now have ten years ahead of us to make GESDA a benchmark player for multilateralism and science diplomacy based on anticipation, honest brokering, global action, and public-private partnership.



**Sandro Giuliani**

## 2 2022 at a glance

### GESDA's mandate extended for 10 years

After a successful pilot phase, the Swiss and Geneva governments **extended GESDA's mandate by 10 years** and confirmed their increased financial support for the Foundation's scale-up phase.

### 2022 GESDA Science Breakthrough Radar®

The Foundation released its second and significantly expanded edition of the **GESDA Science Breakthrough Radar®**.

### 2022 Geneva Science and Diplomacy Anticipation Summit

GESDA's second annual **Geneva Science and Diplomacy Anticipation Summit** has become a magnet event in Geneva, with a 40% increase in participation.

### GESDA Solution Accelerator and Pipeline of Solution Ideas

GESDA presented its Pipeline of Solution Ideas, with the first two that will be ready for incubation in 2023:

- **The Open Quantum Institute**
- **The Global Curriculum on Science & Diplomacy**

GESDA is also bringing more Solution Ideas to maturity:

- **The Neurotech Compass**
- **The Decarbonization Accelerator**

### 2022 at a glance

### Successful implementation of three innovative demonstrators

GESDA successfully launched three pilot demonstrators to prototype and test possible solution ideas:

- **The first Geneva Science Diplomacy Week;**
- **The Youth and Anticipation Initiative;**
- **The Human Right to Science Initiative.**

### GESDA launches its Impact Forum

Following the 10-year extension of its mandate, GESDA launched its Impact Forum to catalyse the resources and expertise that will be needed for its scale-up phase.

### Effective partnerships for renewed multilateralism

Through its solution ideas and pilot demonstrators, GESDA initiated several impact-oriented partnerships within the international landscape, in Geneva and globally that will contribute to renewed and effective multilateralism.

### Increased visibility and global reach of GESDA

GESDA's intensified engagement activities, community management, and communication efforts were rewarded with a greater reach among its target audiences worldwide.

# 3 GESDA Foundation: Why? What? How?

## Why?

The creation of the GESDA Foundation was based on the premise that the acceleration of science and technology seen in the 21st century calls for acceleration of their use for the greatest benefit of humanity and, consequently, for the multilateral framework of which Geneva is an important world forum to be adapted through scientific anticipatory diplomacy.

Pro memoria: the first two decades of the 21st century saw science diplomacy gain traction on the global agenda both as an international policy practice and as a discipline of human science. A 2010 report by the Royal Society and the American Association for the Advancement of Science (AAAS), entitled *New Frontiers in Science Diplomacy*, gave science diplomacy its first formal definition and established a widely accepted three-pillar taxonomy:

1. **Science for diplomacy**, or using science as a soft power tool to improve international relations;
2. **Science in diplomacy**, or using scientific evidence to inform foreign policy;
3. **Diplomacy for science**, or using the diplomatic apparatus to support and promote international scientific collaboration.

Science diplomacy is now facing a new challenge as science diplomacy efforts need to adapt to both the speed of scientific progress and the shifts in international relations. Working at the crossroads of scientific advancement and diplomacy, GESDA is helping to tackle this issue while balancing the following three factors:

1. **The unprecedented pace** of scientific and technological progress;
2. **The urgency** with which global challenges must be addressed;
3. **The complexity** of global geopolitics.

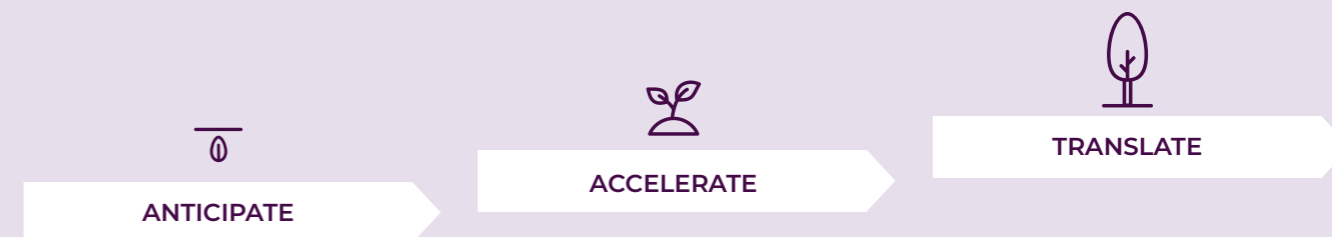
## What?

Consequently, the goal set for the Foundation in its statutes (Article 3) by its co-founders and approved by the Swiss Federal Supervisory Body for Foundations is as follows (verbatim): **“an instrument of anticipation and action, giving priority to public-private partnerships on an international scale and to projects capable of providing solutions to current and future technological challenges, turning them into opportunities and broadening the circle of beneficiaries of scientific and technological advances”**.

**In this context, the vocations of our Foundation are to strengthen the anticipatory power of multilateral stakeholders working for world progress from Geneva or from other locations, and to adapt science diplomacy in general to the accelerating pace of technological development in the 21st century.**

## How?

To fulfil its mission, GESDA has developed the "Anticipatory Situation Room Methodology" built on a threefold set of complementary activities: anticipating, accelerating and translating.



### Anticipating means

1. Drawing up a yearly and rolling inventory of what is "cooking" and will come out of the scientific laboratories in the next 5, 10 or 25 years in the formal, natural or human sciences. This is done by conducting a global scouting exercise based on the excellence and international networks built up by the Swiss and Global researchers mobilized by GESDA, updated annually and by highlighting their potential impact on people, society and the planet.
2. Synthesizing this global scouting of emerging scientific disruptions in a Science Breakthrough Radar® and doing it in a way that is accessible and attractive to all audiences working with GESDA (academic community, diplomatic community, impact community, citizens community) while remaining precise and reconciling the width of the fields considered with the depth of the observations made.

### Accelerating means

3. Sharing this knowledge of emerging science with diplomats, philanthropists, entrepreneurs and the general public at an early and accelerated stage through our Yearly Anticipation Summit.
4. Pinpointing, based on both the yearly Radar® and the yearly Summit, ideas for solutions identified jointly with the scientific and diplomatic communities that are capable of accelerating the response to the global, current or emerging challenges of humanity (health, agriculture, poverty, education, environment, etc.).

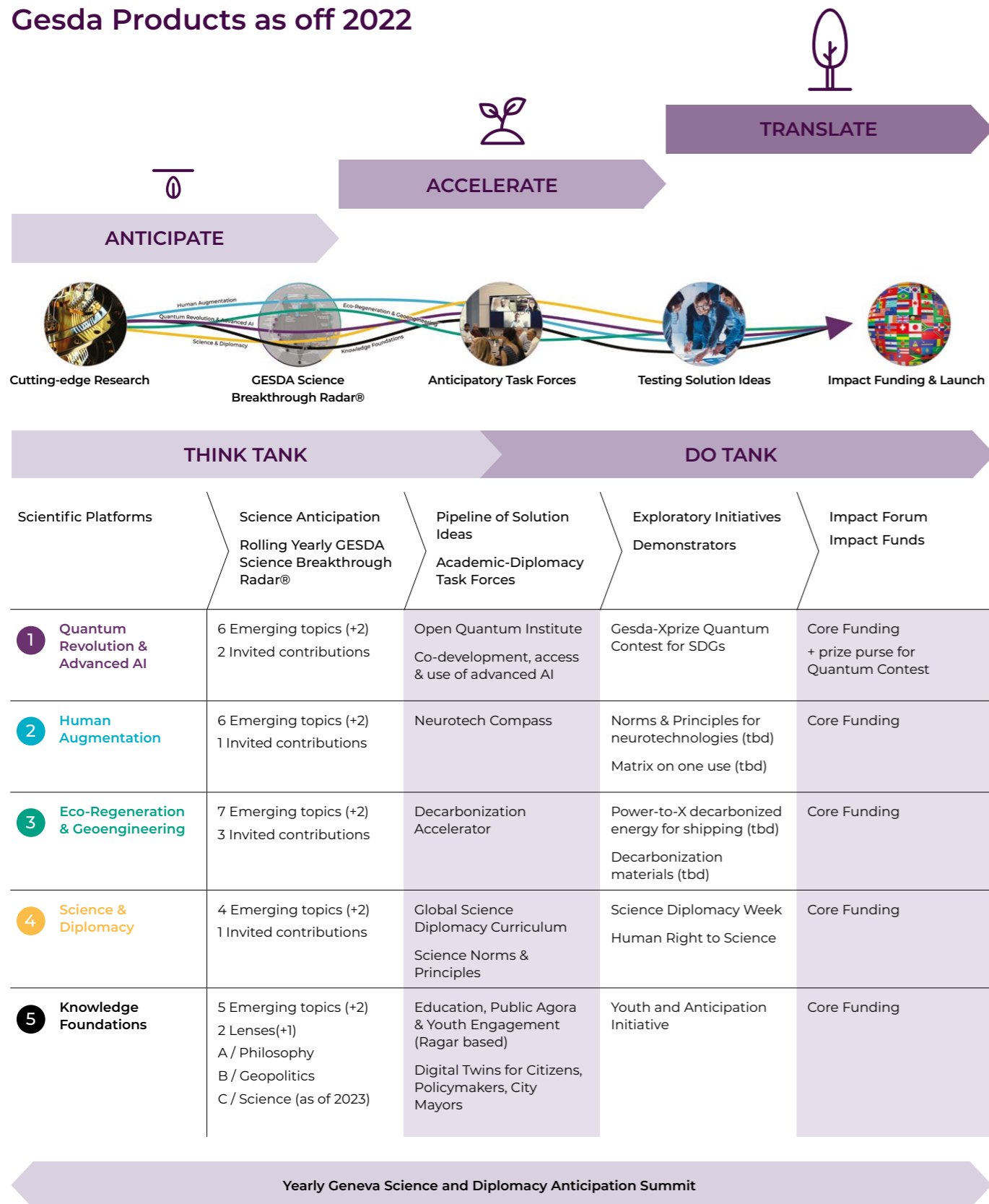
### Translating means

5. Mobilizing the Swiss and international funding needed to implement these avant-garde solutions in collaboration with the multilateral institutions of which Geneva is the operational hub, notably with the aim of contributing to the accelerated implementation of the UN 2030 Agenda (17 Sustainable Development Goals - SDGs).
6. Contributing to making International Geneva the global centre for anticipation of tomorrow's multilateral science diplomacy.

### Whilst fundamentally global, GESDA capitalizes on four distinctive assets of Geneva and Switzerland:

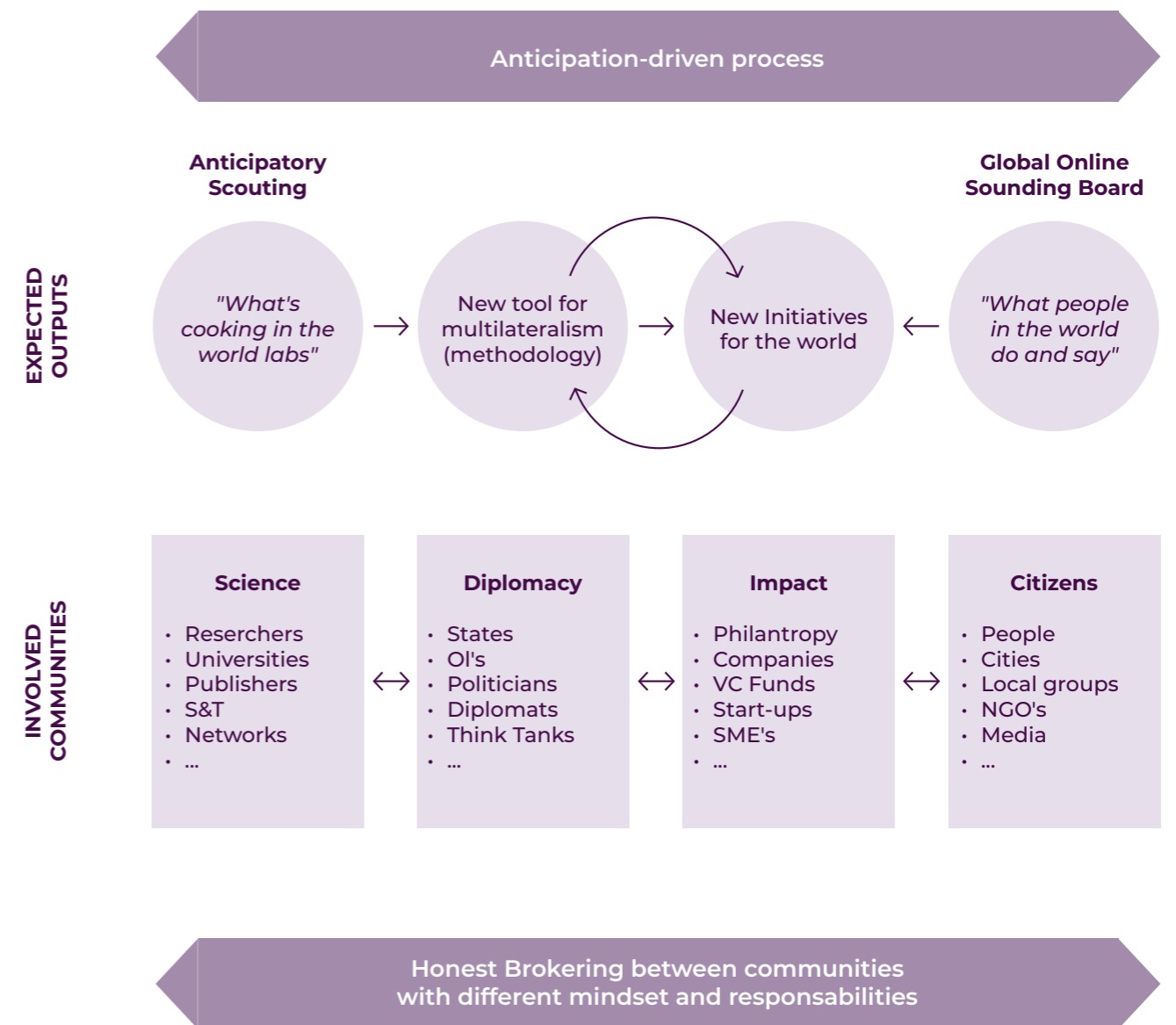
- A long tradition of disruptive research in science and technology;
- Switzerland's renowned neutrality-driven diplomacy, shaped by a vibrant direct democracy;
- The presence of innovative global companies in Geneva and elsewhere in Switzerland;
- Citizens interested and involved in world affairs.

## Gesda Products as of 2022



## GESDA Communities of practice

GESDA developed its anticipation-driven methodology to include the voices of stakeholders who have differing mindsets and responsibilities, among four communities: Academia, Diplomacy, Impact, Citizens.



## 4.1. Major milestones

### 1<sup>st</sup> quarter

Jan. & Feb.	Launch of the Solution Idea Task Forces and first meetings: - Geneva Coalition on Anticipatory Science Diplomacy - Open Quantum Institute (OQI) Task Force - NeuroTech Compass (NTC) Task Force - Co-development, access & use of advanced AI Task Force
24 Jan.	The Board of Directors approves 2021 accounts, audit report and Activity Report
26 & 27 Jan.	High level meeting with our Founders and Board Committee
Feb. & Mar.	Regular Solution Idea Task Forces meetings
3 Mar.	The Swiss Government extends GESDA Foundation's mandate for 2022-2032
28 Mar.	First series of 10 anticipation workshops for New Radar Emerging Topics

### 3<sup>d</sup> quarter

Jul. to Sep.	Regular Solution Idea Task Forces meetings
13 Jul.	First Science of the Future webinar launching UCT-GESDA Youth and Anticipation Initiative
26 Aug.	Peter Brabeck-Letmathe Presents GESDA's plans to the Swiss Ambassador's Conference
26 Aug.	The Board of Directors prioritizes the first solution ideas to be presented at the October yearly Summit
10 Sep.	Official Beginning of the Scale-up Phase for 2022 - 2032

### 2<sup>d</sup> quarter

11 Apr.	GESDA publishes the proceeding of its first Geneva Science and Diplomacy Anticipation Summit
13 Apr.	Geneva Government extends GESDA Foundation's mandate for 2022-2032
21 & 22 Apr.	The Board of Directors adopts the amended Statutes of the Foundation
Apr. & May.	Regular Solution Idea Task Forces meetings
1 May.	Launch of the global consultation on anticipation potential for the Radar
5 May.	Second series of 10 anticipation workshops for New Radar Emerging Topics
16 to 20 May.	First Geneva Science Diplomacy Week
19 May.	First role play on Quantum at the Geneva Science Diplomacy Week
7 Jun.	2 Philosophy workshops for the new Philosophy Lens for 2022 RADAR

### 4<sup>th</sup> quarter

12 Oct.	The Board of Directors adopts 2023 budget and priorities
12 to 14 Oct.	2022 Geneva Science and Diplomacy Anticipation Summit - Proposing the creation of the OQI - Presenting the Global Curriculum on Science and Diplomacy - Presenting the 2022 GESDA Science Breakthrough Radar® - Announcing the creation of the Impact Forum - Featuring a political segment and round table to close the Summit
Oct. to Dec.	Regular Solution Idea Task Forces meetings
11 Nov.	COP 27: GESDA organizes a session on "Mobilizing anticipatory Science for disruptive climate action"
28 Nov. to 1 Dec.	GESDA Symposium at the Fondation Brocher on reviving the Human Right to Science
8 Dec.	GESDA participates to the World Science Forum in Cape Town, with three sessions on the Open Quantum Institute, Science Diplomacy as well as Youth Engagement
8 Dec.	GESDA at the Abu Dhabi Space Debate
12 Dec.	Open Quantum Institute - launch of the global survey



## 4.2. Key results

1. GESDA's mandate extended for 10 years
2. 2022 GESDA Science Breakthrough Radar®
3. 2022 Geneva Science and Diplomacy Anticipation Summit
4. The Open Quantum Institute
5. The Global Curriculum on Science and Diplomacy
6. Other Solution Ideas in preparation
7. The first Geneva Science Diplomacy Week
8. The Youth and Anticipation Initiative
9. The Human Right to Science Initiative
10. GESDA launches its Impact Forum
11. Effective partnerships for renewed multilateralism
12. Increased visibility and global reach of GESDA

## 1. GESDA's mandate is extended for 10 years

After a successful pilot phase, the Swiss and Geneva governments extended GESDA's mandate by 10 years and confirmed their increased financial support for the Foundation's scale-up phase.

In March and April 2022, based on the positive evaluation of GESDA's achievements during the start-up phase, our founders - the Swiss and the Geneva cantonal governments in close collaboration with the city of Geneva – agreed to authorize the GESDA Foundation to operate from September 2022 until September 2032.

This decision, based on the trust that GESDA has established with the federal, cantonal and city authorities, allowed us to shift gears and move from the pilot phase to the scale –up phase. Following this pivotal decision, the Foundation's Board of Directors held the final meeting of its pilot phase on 26 August 2022.

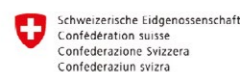
In just three years, the Geneva-based GESDA Foundation succeeded in providing the international community with 3 new practical instruments for developing science diplomacy:

- **The GESDA Science Breakthrough Radar®** and its digital platform, which were made possible through a close partnership with the Fondation pour Genève.
- **The Geneva Science and Diplomacy Anticipation Summit**, which serves as a forum for dialogue between science, politics, diplomacy, philanthropy, economics and citizens' concerns regarding the use of the Radar's identified scientific trends to accelerate the process of accomplishing the international community's goals.
- **The GESDA Solution Accelerator and pipeline of solution ideas**, presented at the 2022 Summit. Among the 4 Solution ideas that were presented, 2 were able to reach a maturity level in 2022 that allows GESDA to begin their incubation in 2023: the Open Quantum Institute and the Global Curriculum on Science and Diplomacy.

*"I first wish to thank the Swiss Government for its renewed support, which validates the results achieved by the Foundation since 2019. The Foundation will continue to contribute to the international community by working as an honest broker between science and diplomacy to enable the greatest number of people to benefit from scientific advances and to accelerate the development of solutions to global challenges."*

Peter Brabeck-Letmathe,  
Chairman of the GESDA  
Foundation





The Federal Council

## Science diplomacy: Federal Council continues to support GESDA Foundation after successful pilot phase

Bern, 04.03.2022 - At its meeting on 4 March 2022, the Federal Council decided to extend the mandate of the Geneva Science and Diplomacy Anticipator (GESDA) Foundation by ten years and to maintain its financial support for the Foundation. After a three-year pilot phase, the Foundation has carved out its profile in International Geneva as an important global governance player. GESDA identifies trends in science and technology, evaluates their impact on and potential for people, society and the planet, and reinforces Geneva as a vector enabling exchange among all actors of the international community.

The world is facing rapid scientific and technological progress. Many advances have the potential to transform humanity and how it interacts with the planet. The international community must act with foresight in order to preserve its scope for action and strengthen its capacity to shape the future. In 2019, these considerations led the Federal Council to establish, together with the State Council of the Canton of Geneva and supported by the City of Geneva, the GESDA Foundation. The mission of the Foundation is to identify and harness the opportunities and challenges of progress. The Foundation serves as an instrument used to develop approaches to tackling the current and emerging challenges facing humanity.

### Successful pilot phase

After its three-year pilot phase, the Foundation is now picking up speed. The Federal Council, as one of the founders, has agreed to extend its mandate until 2032. The federal authorities will provide GESDA with CHF 3 million each year for ten years, starting in 2023. This amount covers just under one third of the Foundation's budgeted basic costs. The decision by the State Council of the Canton of Geneva is pending. Since its inception, GESDA has succeeded in becoming an important player in International Geneva. The Foundation's work pursues three priorities:

- Science Anticipation: here, GESDA publishes an annual Scientific Breakthrough Radar report that describes trends in science and technology that could have a major impact on people, societies and life on Earth. Over 500 Swiss and international scientists worked together to draw up the first Radar, which was published in autumn 2021.
- Diplomacy Acceleration: Guided by the Radar's findings, GESDA promotes dialogue among key stakeholders working in diplomacy, science, international organisations, business and philanthropy, and civil society. The first GESDA Summit was held in early October 2021 and was attended by over 900 people from around the globe.
- Implementation: through science anticipation and the impartial and fact-driven facilitation of discussions between science and diplomacy, GESDA supports the development of specific and effective solutions promoting the implementation of the 2030 Agenda's Sustainable Development Goals. GESDA also pursues this goal through its own projects, such as the GESDA-XPRIIZE Quantum competition.

### Added value for Switzerland

In its role as host state, Switzerland strives to bolster International Geneva as a neutral platform for dialogue and the development of joint solutions to global challenges. GESDA is helping to establish Geneva as a hub for science diplomacy. Through its Radar and annual Summit, the Foundation has been boosting the visibility of International Geneva beyond the traditional spheres of international governance such as NGOs and the UN – and specifically in the scientific community. Moreover, by involving stakeholders working in science, diplomacy, the private sector, philanthropy and civil society, GESDA is breathing new life into the way multilateralism works. With its anticipatory science diplomacy, Switzerland is connecting science and diplomacy with each other early on, thereby providing the international community with an innovative and effective approach to dealing with global issues.

Figure 1: Press Release from the Swiss Government, 4. March 2022



## Genève internationale

### Genève renouvelle ses engagements en matière de diplomatie scientifique

Le Conseil d'Etat a prolongé jusqu'en 2032 la durée de la fondation Geneva Science and Diplomacy Anticipator (GESDA). Cette fondation conforte le territoire genevois dans son rôle d'épicentre de la diplomatie scientifique. Par la publication de ses rapports et l'organisation de son sommet annuel, elle contribue à réformer le fonctionnement du multilatéralisme et accroît la visibilité de la Genève internationale au-delà des cercles traditionnels de la gouvernance mondiale.

La fondation GESDA été créée en 2019, à l'initiative de la Confédération et en collaboration avec le canton de Genève. Après une phase pilote de trois ans, ses activités ont pris de l'ampleur et le renouvellement de son mandat doit, comme le prévoient ses statuts, être approuvé par le Conseil d'Etat ainsi que les autorités fédérales. Ces dernières ont déjà accordé à la fondation GESDA, le 4 mars 2022, la possibilité de poursuivre ses activités durant les dix prochaines années.

Forte de son rôle d'Etat hôte, la Suisse tient à consolider le positionnement de la Genève internationale en tant que plateforme neutre propre à favoriser le développement de solutions communes aux défis de la planète. Cette volonté correspond à l'approche universaliste du gouvernement genevois, la fondation GESDA ayant notamment pour vocation d'évaluer les effets potentiels des avancées scientifiques et technologiques sur les individus et nos sociétés.

### Geneva renews its commitment to science diplomacy.

The State Council has extended the mandate of the Geneva Science and Diplomacy Anticipator (GESDA) until 2032. The foundation reinforces Geneva's role as a global epicenter for scientific diplomacy. Through the publication of its reports and the organization of its annual summit, it contributes to renewing multilateralism and increases the visibility of International Geneva beyond the traditional circles of global governance.

The GESDA Foundation was created in 2019, at the initiative of the Swiss Government and in collaboration with Geneva Government. After a three-year pilot phase, its activities have grown and the renewal of its mandate must, as provided for in its statutes, be approved by the State Council and the Federal authorities. On March 4, 2022, the latter have already granted the GESDA Foundation the possibility to continue its activities for the next ten years.

As a host state, Switzerland is keen to consolidate the position of International Geneva as a neutral platform for the development of common solutions to the world's challenges. This desire corresponds to the universalist approach of the Geneva government, as the GESDA Foundation's mission is to evaluate the potential effects of scientific and technological advances on individuals and our societies.

Figure 2: Communication from Geneva Government of 13. April 2022

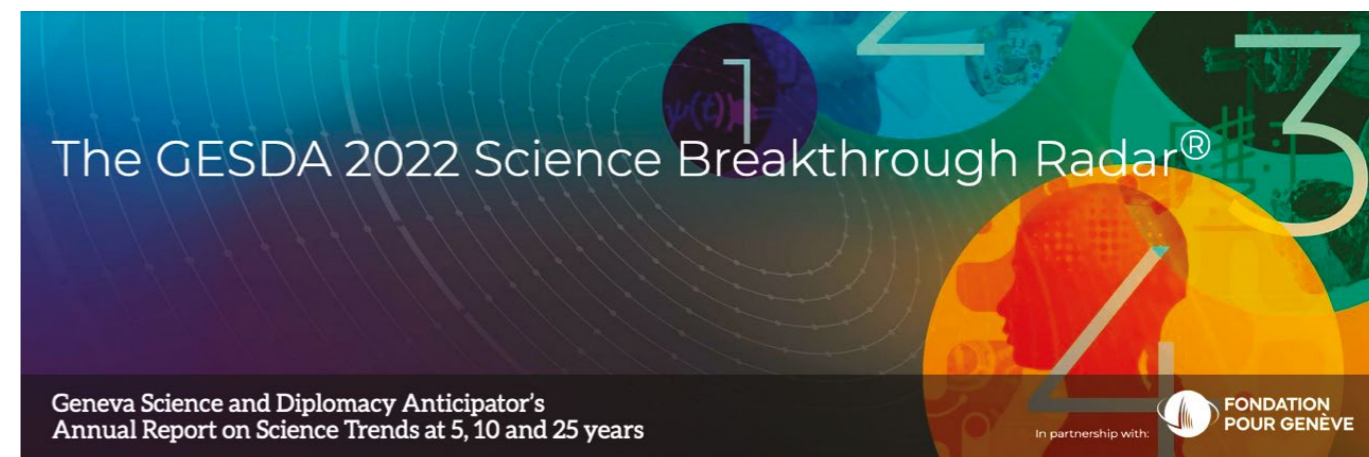
## 2. GESDA Science Breakthrough Radar®

The Foundation revealed its second and significantly expanded edition of the GESDA Science Breakthrough Radar®.

After the success of the first edition in 2021, GESDA published the 2022 GESDA Science Breakthrough Radar® on 12 October. Its reception has been positive as evidenced by the growing number of its adopters. In 2021, the digital platform of the Radar totaled 5,700 unique visitors. By the end of 2022, the platform had welcomed 15,300 new unique users, totaling 21,000 in total over 15 months.

### Overview of the scientific topics covered in the 2022 edition

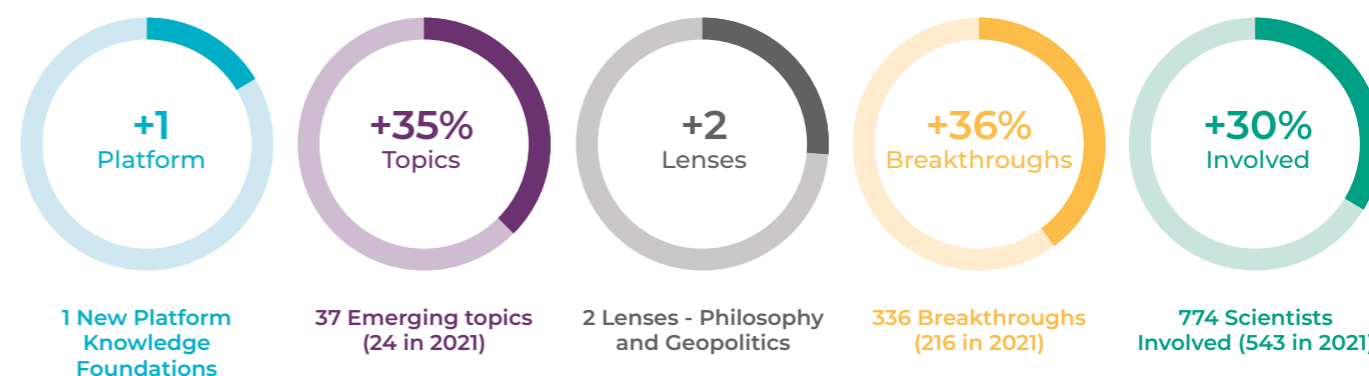
Scientific Platforms	Emerging topics in the 2021 edition that will be updated and enhanced	New emerging topics extended into full briefs	New invited contributions
1 Quantum Revolution & Advanced AI	1.1 Advanced AI 1.2 Quantum Technologies 1.3 Brain-inspired Computing 1.4 Biological Computing	1.5 Augmented Reality 1.6 Collective Intelligence	<ul style="list-style-type: none"> <li>The Technology Opportunity for Digital Humanities and Art</li> <li>AI for Science</li> </ul>
2 Human Augmentation	2.1 Cognitive Enhancement 2.2 Human Applications of Genetic Engineering 2.3 Radical Health Extension 2.4 Consciousness Augmentation	2.5 Organoids 2.6 Future Therapeutics	<ul style="list-style-type: none"> <li>Xenobots and Computer-Designed Organisms</li> </ul>
3 Eco-Regeneration & Geoengineering	3.1 Decarbonisation 3.2 World Simulation 3.3 Future Food Systems 3.4 Space Resources 3.5 Ocean Stewardship	3.6 Solar Radiation Modification 3.7 Infectious Diseases	<ul style="list-style-type: none"> <li>Polar Resources</li> <li>Coral and Ocean Renewal</li> </ul>
4 Science & Diplomacy	4.1 Science-based Diplomacy 4.2 Advances in Science Diplomacy	4.3 Digital Technologies and Conflict 4.4 Democracy-Affirming Technologies	<ul style="list-style-type: none"> <li>The Challenges and Opportunities of Sustainable Finance</li> </ul>
5 Knowledge Foundations	5.1 Complex Systems Science 5.2 Future of Education 5.3 Future Economics	5.4 The Science of the Origins of Life 5.5 Synthetic Biology	<ul style="list-style-type: none"> <li>The Philosophical Lens</li> <li>The Geopolitical Lens</li> <li>The Future of Peace and War</li> <li>Future Literacy</li> <li>How Machine Learning is Transforming Regional Economic Development</li> </ul>



### Additional emerging topics, increasing number of contributors

The 2022 GESDA Science Breakthrough Radar® features improvements and new conceptual elements from the 2021 edition. It also has been significantly expanded compared to the inaugural edition last year:

- **A growth in the community** from 543 to 774 leading scientists;
- **An increase in the number of emerging topics** from 24 to 37;
- **2 new lenses, a Philosophy lens and a Geopolitical lens;**
- **And the additional monitoring of actions taken** in relation to our scientific platforms, complementing the existing sentiment analysis (opinions) in the Actions/Debates section.



### An additional scientific platform: Knowledge foundations

In 2022 we introduced a new scientific platform: Knowledge Foundations. It covers areas of foundational knowledge that are transversal to the four other scientific platforms and are consequential for all individuals, humanity and the planet. Those include topics from basic sciences, engineering sciences, social sciences and the humanities that do not fall easily into one of our existing four platforms. The reason for this is that these topics draw on research from multiple disciplines and their anticipated effects span the human, social and environmental spheres. Emerging topics, for example, range from synthetic biology to the future of education.

### Philosophical lens

Reaping the benefits of anticipated science advances and emerging technologies requires anticipation and understanding of the trends, schools of thought and strategies within rapidly evolving landscapes of philosophy, social sciences, and the humanities. In other words, we also need to ask the right questions and consider all the possible solutions for the beneficial future of humanity and our planet, given all of the anticipated advances in these disciplines. The “philosophical lens” extends the initial reflections on the same three fundamental and overarching questions driving GESDA’s work:

- **Who are we, as humans?** What does it mean to be human in the era of robots, gene editing and augmented reality?
- **How can we all live together?** What technology can be deployed to help reduce inequality, improve well-being and foster inclusive development?
- **How can we ensure the well-being of humankind and the sustainable future of our planet?** How can we supply the world population with the necessary food and energy while regenerating our planet?

### Geopolitical lens

For GESDA to be successful, it will also have to anticipate where geopolitics is headed as a field of study. This will require an understanding of the flow of thoughts within the discipline and an ability to ask the right questions, from a geopolitical perspective, about the future of humanity and the planet. Applying a “geopolitical lens” will equip GESDA with the proper frameworks and tools to be able to navigate this moving landscape. The geopolitical lens of the 2022 GESDA Science Breakthrough Radar® resulted from a discussion on the future of peace and war, among key scholars of geopolitics and a new collaboration that involves both the Geneva Center for Security Policy (GCSP) and Columbia University (Prof. Jean-Marie Guéhenno, former United Nations' Under-Secretary-General for Peacekeeping Operations)

Find out more and further expand your digital experience here: <https://radar.gesda.global>

### 3. 2022 Geneva Science and Diplomacy Anticipation Summit

GESDA's second Geneva Science and Diplomacy Anticipation Summit has become a magnet event in Geneva, with a 40% increase in participation.

The GESDA Foundation's second annual gathering – the Geneva Science and Diplomacy Anticipation Summit, or GESDA Summit – took place on 12-14 October 2022 in Geneva, Switzerland, at Campus Biotech, where GESDA is headquartered.

GESDA sealed its reputation as a new force for transforming anticipatory science and diplomacy into global multilateral action.

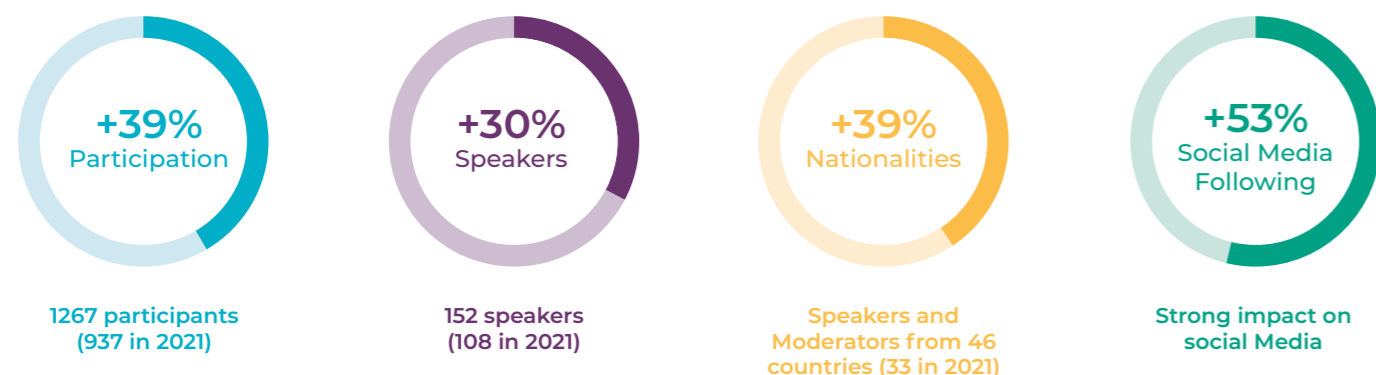


This hybrid event expanded participation from all of GESDA's collaborative pathways including the first assessments from a high-level political panel and from a youth cohort.

The four main objectives of this second edition of the Summit were to:

- Provide a **yearly update of the GESDA Science Breakthrough Radar®**, which is produced in partnership with the Fondation pour Genève;
- Introduce **GESDA's new Pipeline of Solution Ideas**, which are prototypes of possible avenues of action that could accelerate the beneficial uses of emerging scientific and technological trends for all or most of humanity;
- Gain a **preliminary assessment by political authorities** on whether and how these actions could be politically endorsed in a broad manner and, as a result, be set in motion at a global diplomatic level;
- **Start to set up innovative impact funding instruments** that could provide the resources that would be needed to incubate these solution ideas.
- In addition, a **Public Plenary session focused on advances in genetic engineering and synthetic biology** organized in partnership with the Geneva Graduate Institute.

### Key figures of the 2022 Summit



### Highlights from the 2022 GESDA Summit programme

#### High-Level Political Segment

A new political element was introduced with an inaugural panel that included Swiss President Ignazio Cassis and ministers from Estonia, Mexico, Morocco, Singapore and the United Arab Emirates. It was moderated by Alexandre Fasel, Switzerland’s first Special Representative for Science Diplomacy. President Cassis said a Western assumption that the world is “automatically increasing towards democracy” no longer seems to be the case, with the rise of authoritarians and wars in Asia, the Middle East and now Europe telling a different story. He emphasized the need for citizens living in democracies to be willing and able to include all viewpoints in public debates, not just those from like-minded people, and “this is a topic where science, science diplomacy can help us to do the right thing.”

The Swiss President, Ignazio Cassis also said his dream is for GESDA to become “a powerful tool in enabling a diverse world, through science, to make some steps together in a peaceful way,” and for science diplomacy to become the theme of the 21st century among Geneva’s hub of international organizations and multilateralism, much like human rights in the 20th century and international humanitarian law in the 19th century.



### Opening High-Level Plenary

The summit opened with a demonstration of GESDA’s firm support from the Swiss and Geneva governments, including an explanation by Swiss President Ignazio Cassis on why authorities extended GESDA’s mandate for 10 years after its successful three-year pilot phase. Speakers cited the need for multilateral governance in a world grappling with climate-linked droughts and flooding, widespread hunger, pandemics, armed conflicts in Europe and much of Asia and Africa, human rights abuses, inflation and disrupted supply chains.

GESDA Board Chairman Peter Brabeck-Letmathe emphasized that GESDA has no time to waste to fulfil its mission. GESDA Board Member Mamokgethi Phakeng, Vice-Chancellor of South Africa’s University of Cape Town (UCT), oversaw a new Youth and Anticipation Initiative as a partnership between UCT and GESDA to engage young people.

During a high-level panel on the topic of “The New Geopolitical Landscape for Science,” GESDA announced a new collaboration with the Geneva Center for Security Policy (GCSP) and Columbia University that links emerging science to future challenges of peace, war and international security.

### The 2022 GESDA Science Breakthrough Radar®

Presented during the Opening High-Level Plenary, GESDA’s flagship product involved 774 scientists from 73 countries, a 43% increase in the number of scientists from last year’s inaugural edition. The number of emerging topics identified also rose to 37, up from 24 previously. A fifth area of emerging sciences – knowledge foundations – was added to the four main areas in which the scientists anticipate developments: the quantum revolution and advanced AI; human augmentation; eco-regeneration and geoen지니어ing; and science and diplomacy.

GESDA’s Academic Forum expanded its network of participating scientists because “we have to keep engaging with the scientific community,” said Martin Vetterli, President of the Swiss Federal Institute of Technology Lausanne (EPFL), who oversaw the forum’s development of the Radar for two-and-a-half years with Joël Mesot, President of the Swiss Federal Institute of Technology in Zurich (ETHZ). Since the Radar affects everybody, Phakeng said, the new Youth and Anticipation Initiative will “get the voices of young people into the conversation,” helping to reduce inequalities. The Radar’s new philosophical and geopolitical lenses also include a “very necessary dialogue” involving social scientists, said Geneva Graduate Institute Director Marie-Laure Salles.

### The GESDA Pipeline of Solution Ideas

For the first time, GESDA presented a new tool for accelerating solution ideas to emerge from the Radar and Summit into concrete actions. This year, those are a pair of proposals to create an Open Quantum Institute (OQI) in Geneva and the first Global Science and Diplomacy Curriculum.

The purpose of the OQI – which drew lengthy discussion and was well-received – is to widen global access to quantum computers and develop use cases for quantum computing that could help accelerate the accomplishment of the UN’s 17 Sustainable Development Goals (SDGs) for 2030.

The Global Science and Diplomacy Curriculum is meant to help train current and future science and diplomacy leaders to effectively tackle emerging global challenges through anticipatory science and diplomacy. It is being developed with a large number of partners from Geneva, Switzerland, and worldwide.

### The GESDA Youth Cohort

This year's summit gained fresh perspective from 12 young people whose participation was based on the nominations and support of GESDA partner institutions, including South Africa's University of Cape Town, Swissnex, Swiss Young Academy of Scientists, Villars Institute and XPRIZE Foundation. Among them were three participants chosen from the Youth and Anticipation Initiative led by Phakeng. Throughout the summit, the youths were invited to share their thoughts about what they heard, learned and reflected on during the sessions, and to share their views on the future of science and diplomacy and on GESDA's efforts and vision.

During a panel discussion, several of the young and aspiring leaders, who are just setting out on their chosen educational and career paths, emphasized the need to sustain hard work and hope in the service of science anticipation. "We are constantly reminded that there is a lot that we are struggling to cope with as a society, as a world and as a species. There are a lot of challenges that we have to overcome," said Jordan Naddaf, an American student at SOAS University of London. "I think that GESDA has left me very hopeful."

In a keynote message, Phakeng congratulated all of the youths for "making it to GESDA" because it meant they are all working hard and doing things that are important for everyone to hear about. "You will inherit the world," she told them. "And so, it is important that you become part of the conversation and you, as young people, become part of leading the action into a better future."

### Launch of the Impact Forum and Fund

With financing for international impact continuing to be a challenge, GESDA confirmed its ambition to launch an Impact Forum and related Impact Fund led by GESDA Board Vice-Chairman Patrick Aebischer, who is president emeritus of EPFL. Their purpose is to provide the resources necessary to implement the most promising solutions and initiatives using emerging science for the benefit of humanity. They take aim at the same global inequalities and nationalism that hampered recovery from the COVID-19 pandemic.

In a keynote message, Aebischer noted that we're living through an incredible time of scientific disruption at a pace never seen before – and a new Impact Forum and Fund can help us respond better, break down inequalities and bring the scientific community to the table of multilateralism. "Everybody needs to be around the table, and that's what we've decided to do at GESDA," he said. "We're going to rely on innovating new financing, which is going to be public-private by definition."

The proceedings of the Summit are published and accessible on GESDA's website: <https://gesda.global/summit-2022/>

## 4. The Open Quantum Institute



### Emerging Topic in the Radar: Quantum Technologies

Few emerging technologies have generated as much excitement as quantum computers in recent years. The reason is simple: these devices promise to solve problems that are currently intractable.

Despite rapid advances in computing capabilities over the past half century, there are still certain calculations that even today's most powerful supercomputers can't crack in any reasonable time frame. Finding ways to solve these problems could impact large swaths of the economy and help solve some of the grand challenges facing humanity this century. If directed towards the right issues, quantum computing could enable scientific and technological breakthroughs that could transform the lives of millions.

Sofar, however, quantum computing development has been concentrated in a handful of nations and large multinational corporations. This increases the risk that the most socially beneficial use cases will be de-prioritized in favor of applications that confer commercial or geostrategic advantages. Little work has been done to investigate how quantum computing could help tackle the UN's Sustainable Development Goals (SDGs).

The Open Quantum Institute (OQI) will be the first truly international quantum computing governance initiative, bringing together a diverse and inclusive coalition committed to ensuring quantum computing has an open future. It aims at providing global, inclusive, and equitable access to quantum computing to accelerate the achievement of the UN Sustainable Development Goals (SDGs).

*"The time is right now (...) Fifty years from now, we will have quantum computing which will allow us to solve problems that are intractable with classical computers. The danger is that the technology itself will continue to increase the gap between developed and developing countries, and between those with and without access to the technology. It's important that we think about this new technology early enough and try to frame it in a way that goes to the benefit of all humanity; hence the idea of GESDA using quantum computing as one of our first solution ideas."*

Fabiola Gianotti,  
CERN's Director-General,  
and GESDA Board Member



**The OQI Goals and objectives:**

- **Providing a platform to foster collaboration on the development of quantum computing applications for the SDGs** that benefit all of humanity, by **developing use cases** with quantum researchers and developers from industry and academia closely working with UN field experts and managing a repository of what is being done globally.
- **Widening the reach of quantum computing beneficiaries** and users by providing global, inclusive and equitable access to a pool of public and private state-of-the-art quantum computers, emulators and simulators available through the cloud.
- **Leveling the playing field by developing capacity-building instruments** for everyone to contribute to technology development, especially those in currently underserved geographies.
- **Providing a neutral forum for diplomatic discussions to frame the future of multilateral governance for quantum computing.**

**How did we get there?**

The shaping and development of the Open Quantum Institute is the result of a rigorous process – GESDA’s Anticipatory Situation Room methodology – designed to anticipate and react to future scientific developments that could have significant global impact.

Consultation with GESDA’s diplomatic and scientific fora highlighted quantum computing as a field that will have a transformative effect on people, society, and the planet in the coming decades, and thus requires scientific and diplomatic action.

The process of engaging multiple stakeholders to focus on concrete outcomes involves anticipating the impacts of emerging technologies and creating a common understanding of what needs to be done.

To manage this process, GESDA set up a task force of interested parties from the public and private sectors to evaluate the opportunities and gaps, and to propose potential solution ideas.

The result is the proposal of an Open Quantum Institute that will be incubated and tested in 2023 with a coalition of public and private partners.

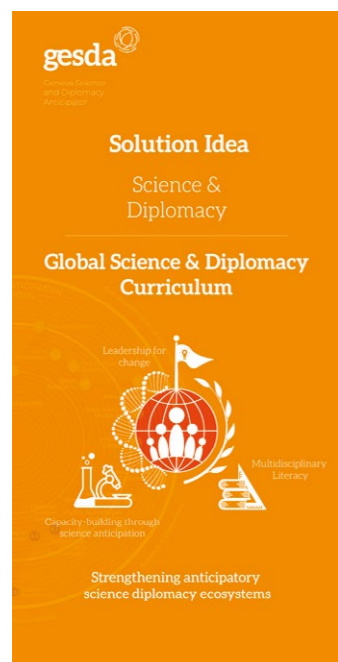


**Building a global and diversified coalition of contributors**

Unveiled at the 2022 Geneva Science and Diplomacy Anticipation Summit, the OQI has created a wave of interest well beyond the circle of quantum computing experts. By the end of 2022, 12 nations’ diplomatic missions in Geneva, 12 academic institutions, nine international organizations, eight private companies and two strategic partners had expressed their support for it.

Find out more:  
 GESDA website: <https://gesda.global/solutions/open-quantum-institute-about/>  
 Introductory video: <https://gesda.global/solutions/open-quantum-institute/>  
 OQI Impact Story: <https://gesda.global/wp-content/uploads/2022/09/GESDA-Quantum-Computing-Impact-Story-Apr2022-1.pdf>  
 SDG use cases: [https://gesda.global/wp-content/uploads/2022/10/GESDA\\_Quantum-for-SDG-Use-Cases\\_10102022\\_Final.pdf](https://gesda.global/wp-content/uploads/2022/10/GESDA_Quantum-for-SDG-Use-Cases_10102022_Final.pdf)

## 5. The Global Curriculum on Science and Diplomacy



### **Emerging Topic in the Radar:** Collaborative Science Diplomacy; Science-based Diplomacy

The Idea of a Global Curriculum on Science and Diplomacy (GCSD) emerged from the inaugural GESDA Science Breakthrough Radar® and the Geneva Science and Diplomacy Anticipation Summit in 2021. The goals are to **establish anticipatory science and diplomacy as an academic topic**, a mindset, a practice, and a new professional pathway. That will **provide knowledge, skills and practical tools to help people navigate the science-diplomacy interface** and foster boundary-spanning professionals and institutions.

#### **Goals and Objectives:**

Building upon Geneva's rich tradition of science diplomacy, the GCSD has the following objectives:

- Coalesce proponents of science diplomacy in Switzerland, Geneva and globally to **establish and promote the vision of a “global center of science and diplomacy for multilateral effectiveness” in Geneva;**
- **Leverage the expertise of strategic partners** to jointly develop a global framework curriculum for science and diplomacy that serves as the basis of impactful training for effective multilateralism;
- Ensure that the proponents of science and diplomacy are informed and **equipped to act** in a **multistakeholder and multilateral setting**, thus filling a gap in current training and educational offerings.
- Realize the potential of scientific anticipation to promote a **cross-cutting mindset** in the current and next generation of leaders with the aim of ensuring that they are willing and able to work together to **elevate the use and impact of science among international and national policymakers.**

#### **3 key levels of competencies**

The curriculum will encompass three levels of competencies to build science diplomacy capacities tailored to individuals and their career stages. These will empower younger generations seeking to have local

impacts; innovators in higher and executive education aiming to bridge academic silos; and diplomats training in national and multilateral settings whose ambition is to define the future of global governance frameworks for frontier science and technology advances. The program includes:

- Anticipatory knowledge, leveraging the GESDA Science Breakthrough Radar®.
- New skills and tools to apply science and technology to diplomatic processes.
- Networking with science diplomacy experts at academic and diplomatic institutions.

Through a global coordinated outreach, the GCSD will aggregate, enhance, promote, and scale existing educational programs, identify gaps in these offers, and develop new ways of filling them.

#### **The Global Curriculum on Science and Diplomacy builds on three pillars:**

- An initial network of partners from the Geneva Coalition on Anticipatory Science and Diplomacy that launched the 2022 Science Diplomacy Week (photo). This will provide for a rich and diversified set of skills, experiences and knowledge.
- Successful pilots:
  - » 2022 Geneva Science Diplomacy Week (see Key Result 5)
  - » UCT-GESDA Youth and Anticipation Initiative (see Key Result 5).
- The GESDA Science Breakthrough Radar®, which provides a starting point for developing the knowledge behind the training materials.

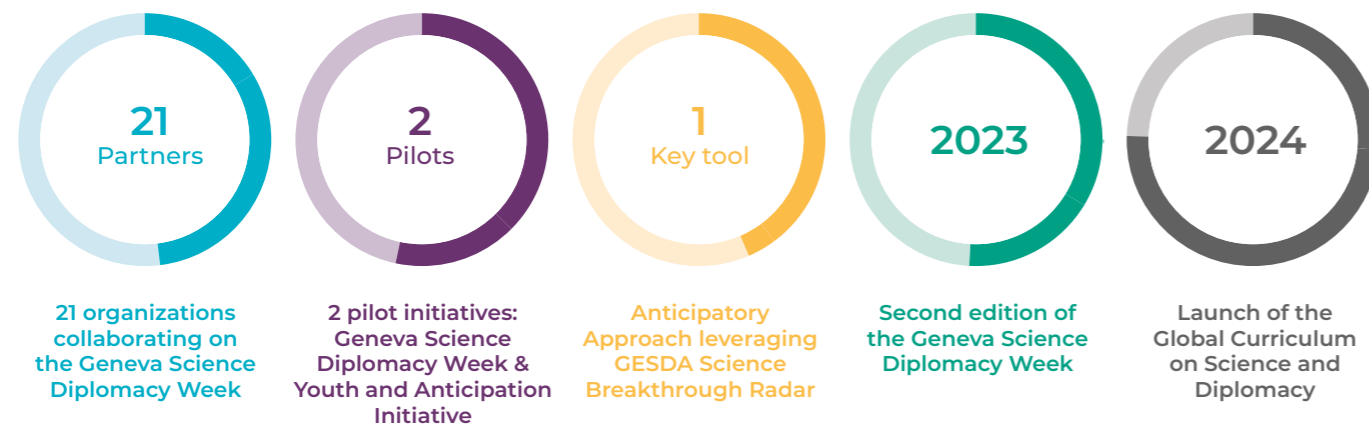
*“Today, we face a paradox. Many global challenges of scientific and technological dimensions transcend national boundaries and require all sectors to work together. But scientists and diplomats lack a shared language, common mindset, and place to exchange (...) The curriculum wants to bridge this gap. To establish an anticipatory science and diplomacy mindset, we must begin with how we train current and future leaders in all sectors in STEM, national governments, multilateral organizations, or the private sector: empowering the current and next generation with a multilingual mindset in science and diplomacy; and fostering boundary-spanning professionals and institutions.”*

Martin Chungong,  
Secretary-General of the  
Inter-Parliamentary Union (IPU)





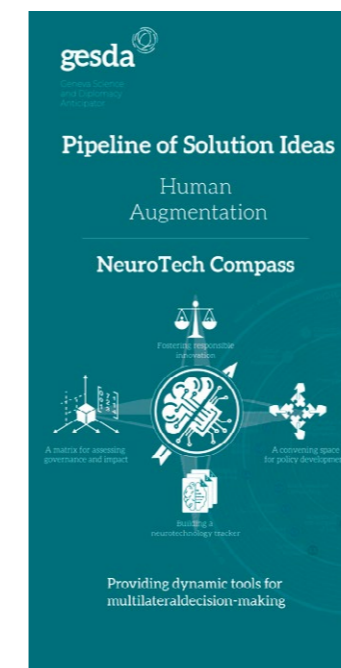
### The road towards the first Global Curriculum on Science and Diplomacy



Find out more:  
GESDA website: <https://gesda.global/solutions/science-diplomacy-curriculum/>

## 6. Other solution ideas in preparation

### The NeuroTech Compass



**Emerging Topics in the Radar:** Future Therapeutics, Cognitive and Memory Enhancement, Future of Human Genome Editing

In today's world interfaces implanted in the brain can help disabled people communicate and move again, both in the lab and in the clinic, by stimulating specific brain regions. Other interfaces, placed on the skull, can "read" brain states and mental images in the lab and clinic, and increasingly for all consumers.

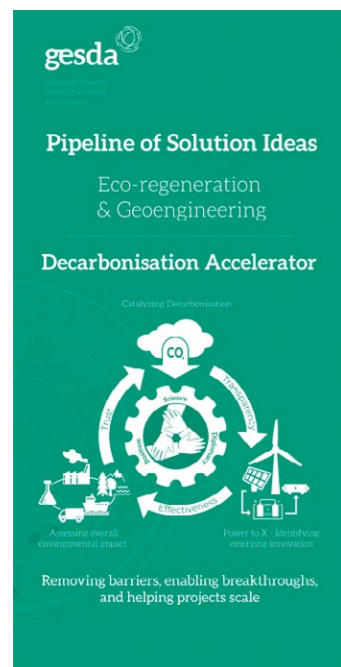
In the future the loop between interfaces that read and those that write (stimulate) the brain will be closed, opening the way to treat mood or personality disorders, increase cognitive functions, and control behaviour in a precise manner.

These exciting advances in neurotechnology will have broad and deep impacts on human beings and society. "Brain data" from individuals has implications for privacy protection and sharing for research purposes: Neurotechnological treatments will affect our memories, personalities, and even our identities, modifying how we perceive what it means to be in control and to take responsibility for our actions. They will challenge our ideas of what it means to have freedom of thoughts, trust, and free will, and our definition of what it means to be a "normal" person. All of these liberating technologies pose future challenges in terms of equitable access, potential dual uses (weaponization), and how device makers approach their ethical responsibilities.

- GESDA anticipates scientific breakthroughs and governance gaps in emerging neurotechnology as its applications leave the medical field and become non-invasive.
- Industry and communities of practice (patients and consumers) have formed their own views and stances independently.
- Nations and multilateral organizations have proposed ways of governing neurotechnology that are not yet gaining traction among policymakers.
- Many of these policymakers are not yet aware of and/or informed about critical developments in neurotechnology and the growing need for anticipation and action.

The proposed solution idea that is being curated by a GESDA task force would create a forum for permanent and anticipatory conversation among neurotechnologists (those working both in public and industry labs), decisionmakers, (those working at diplomatic missions, UN agencies, or government functions), and citizens at large to **discuss solutions to governance gaps** that will allow us to **make decisions on how, where and when to act** as an honest broker.

## The Decarbonization Accelerator



**Emerging Topics in the Radar:** Decarbonizing the global economy and society, Socio-ecological foresight - Integrated Digital Ecosystem Avatars - IDEAs

From the start of 2022 through the end of COP27 toward the end of the year, a growing sense of agreement among governments, businesses, and citizens was evident that a decarbonization global effort is needed at every level of society and industry. Huge challenges remain, however, in how to translate intention into action.

The Decarbonization Accelerator is an ecosystems orchestrator – an initiative that aims to create a network of peers in which the participants interact and share in the value creation. The goal is to facilitate decarbonization solutions and projects by helping them to get off the ground. To accomplish that, we will leverage access to science, diplomacy, business and other interests among stakeholders

- The Decarbonization Accelerator Solution idea aims to scale up decarbonization projects by influencing supply and demand, along with the barriers to success.
- It would provide access to interested and invested parties and strategic support to solutions and projects.
- It would ensure a global and inclusive coalition by engaging all key stakeholders, including diplomats, academics, leading businesses, and international organizations.
- Ultimately, it would act as an honest broker, building bridges among communities and fostering collaboration among scientists and diplomats to accomplish concrete outcomes.

## 7. The First Geneva Science Diplomacy Week

Towards building a collaborative platform for science and diplomacy in Geneva

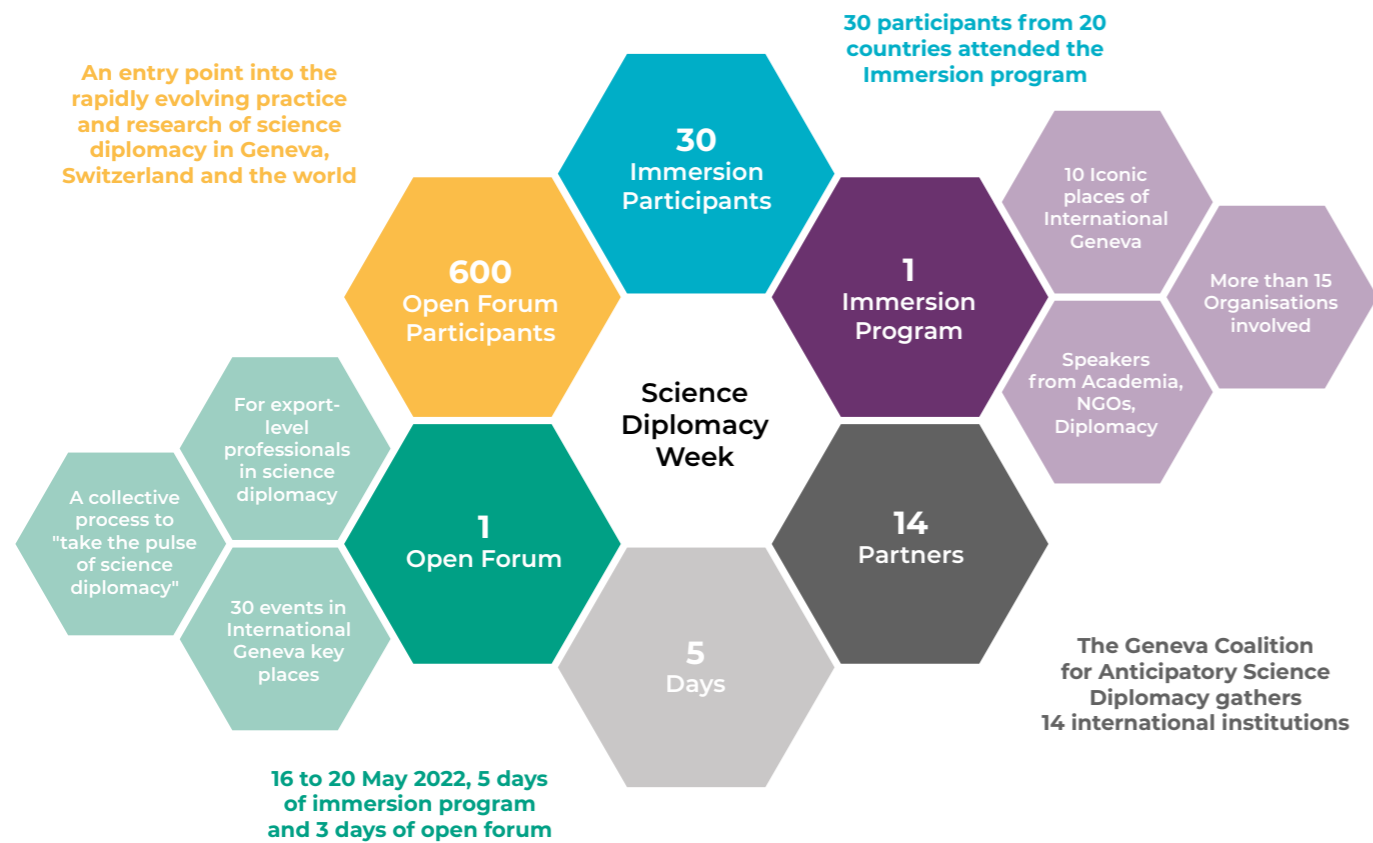
The pace of scientific and technological innovation and progress is already reshaping how we view ourselves as humans, how we relate to each other in society and how we care for our environment. To prepare for this future, stakeholders from the academic, diplomatic, impact and citizen communities must understand and jointly promote anticipatory science and diplomacy as an effective tool for renewed multilateralism.

Initiated in 2021 by GESDA with the participation of 21 Swiss and global institutions, the **Geneva Science Diplomacy Week** offered an unparalleled educational experience, with opportunities for networking, through immersion into the dynamic science and diplomacy ecosystem of International Geneva. The week of training and discussions aimed to empower current and future generations of leaders by imparting a «multilingual» fluency in the ways of science and diplomacy. Participants gained fresh skills in how to navigate the science-diplomacy interface, adding to the ranks of boundary-spanning professionals and institutions.

The week was organized into two tracks: an **immersion program** for 30 participants from around the world and an **open forum** for about 600 participants from the International Geneva ecosystem. Each day was dedicated to one of the Scientific Platforms featured in the GESDA Science Breakthrough Radar® with the total 40 sessions hosted in different locations such as the UN Geneva, World Meteorological Organization, Graduate Institute, CERN and Campus Biotech.

Within GESDA's framework, this initiative is also a first step toward building a global curriculum for science and diplomacy to equip future leaders with the necessary knowledge, skills and networks to effectively operate in the multilateral system.





**The 21 partners of the 2022 Geneva Science Diplomacy Week**

<b>GESDA</b> - Geneva Science and Diplomacy Anticipator Foundation	<b>INGSA</b> - International Network for Governmental Science Advice
<b>CERN</b> - European Center for Nuclear Research	<b>IPU</b> - Inter-Parliamentary Union
<b>CYBERPEACE INSTITUTE</b>	<b>ISC</b> - International Science Council
<b>DIPLO FOUNDATION</b>	<b>SDG LAB</b> by the Director General of the UN Office at Geneva
<b>EPFL</b> - Swiss Federal Institute of Technology Lausanne	<b>SWISSNEX</b>
<b>ETH</b> - Swiss Federal Institute of Technology Zurich	<b>TRANSLATIONAL RED SEA CENTER</b>
<b>GCSP</b> - Geneva Center for Security Policy	<b>UNIGE</b> - University of Geneva
<b>GSPI</b> - Geneva Science Policy Interface	<b>UNITAR</b> - United Nations Institute for Training and Research
<b>GENEVA WATER HUB</b>	<b>UNIZH</b> - University of Zurich
<b>HEID</b> - Graduate Institute of International and Development Studies	<b>WMO</b> - World Meteorological Organization
<b>ICRC</b> - International Committee of the Red Cross	

Find out more and further expand your digital experience here: <https://gesda.global/science-diplomacy-week/>

**8. The first Youth and Anticipation Initiative in Africa**

Paving the way to a Citizens' Forum

**A 4-episode webinar on emerging challenges**

In July 2022, University of Cape Town Vice-Chancellor and GESDA Board Member, Professor Mamokgethi Phakeng, kick-started the UCT-GESDA Youth Anticipation Initiative and hosted the first series of videochats entitled: "Using the science of the future to shape your present."

**The UCT-GESDA Youth Anticipation Initiative** is an outreach project to engage African youth in discussion about some of the most important topics raised by the GESDA Science Breakthrough Radar®. It helps expand our understanding of how science may shape our future, while ensuring that such discussions and decisions include the voice of African youth.

The goal of including as many voices and ideas as possible -- and outlining the youth perspectives in the multilateral dialogues and debates -- is key to ensure that no one gets left behind. Ensuring that future generations everywhere enjoy the benefits of science and technology would mitigate past and emerging inequalities.

Each session addressed one of the four platforms of the GESDA Science Breakthrough Radar® with the participation of GESDA scientific moderators and African experts to contextualize the topics from the continent's perspective. About 2,000 people on average followed each session online.

*"By bringing diverse voices and ideas, we can ensure we get the best thinking from every part of our society and corner of the world. We need your perspectives in these dialogues and debates. It is a matter of intergenerational justice – young people will inherit the future and they must therefore be involved in shaping how science should be used to affect it."*

Prof. Mamokgethi Phakeng  
Vice Chancellor (President) of the University of Cape Town, South Africa, and GESDA Board Member

**The challenge of fostering innovative ideas to address local challenges using GESDA Radar**

Following the webinar series, UCT and GESDA announced a challenge to continue to engage youth with the GESDA Science Breakthrough Radar®. Participants from Africa under the age of 30 who attended all four sessions were invited to submit ideas on how science advances can be used to address local challenges, especially social injustices and inequalities. Those with winning ideas would get an all-expenses paid trip to the GESDA Summit 2022 in Geneva.

Three finalists were selected to attend the summit, all from UCT in South Africa: Rejoyce Kgabo Legodi, a film and media studies student; Bekithemba Ntoni, an international relations master's student; and Niel Swanepoel, a political communication honours graduate.



Like the Geneva Science Diplomacy Week, the Youth and Anticipation Initiative serves as a demonstrator pilot that tests strategies and approaches that could be used in a Global Curriculum for Science and Diplomacy.

## 9. Reviving the Human Right to Science (HRS)

### A Human Right to Science framework

The link between science and human rights was firmly established in the United Nations' 1948 Universal Declaration of Human Rights (UDHR), which asserts that everyone has a right to "share in scientific advancement and its benefits."

In the 21st century, this right is dormant. The rise of disinformation, misinformation and authoritarian populism undermines trust in science, the news media and the notion of common facts in general.

Adopting a human rights framework is a further invitation for collective reflection beyond merely managing risks, so that we can make use of the opportunities that scientific and technological development present in a responsible manner. Of particular relevance in this context is the human right to benefit from scientific progress and its applications, which is also an important part of Article 15 of the International Covenant on Economic, Social and Cultural Rights, a multilateral treaty adopted by the UN General Assembly in 1966.

That treaty obliges nations to take as much action as their available resources allow to progressively achieve full realization of the rights it guarantees. That covers all of the sciences – life, physical, behavioral and social – along with engineering and the health professions, according to the UN Human Rights Office.

### Discussing the Human Right to Science at the Summit

GESDA's inaugural summit in 2021 began a debate over how to rectify the world's unequal access to scientific advancement and its benefits, nowhere more prominently featured than with the global inequities over access to COVID-19 vaccines.

Following up on this debate GESDA held a session entitled, "Reviving the Human Right to Science," at the second edition of the summit in October 2022. The participants' perspectives confirmed a need for more reflection and action.

The need for more anticipation of the risks and potential benefits of science has become more pressing with the increase of dual-use technologies and scientific practices that may irreversibly change us as people and impact our health.

### GESDA Symposium on Human Right to Science in health

In December 2022, GESDA organized the first expert Symposium on the Human Right to Science with a focus on health. The 3-day expert workshop was held in collaboration with the Brocher Foundation. Experts showed that technological change is intense, rapid, and characterized by the convergence of the physical, digital, and biological worlds. **Decisions concerning the development and use of these powerful technologies, they said, should be adopted within a human rights framework, and with a holistic and inclusive view.**

The expert workshop was structured around three main parts from the perspectives of how the HRS fits within international law and how it can be concretely applied. It examined selected case studies where the HRS has either already contributed to policymaking or where emerging technologies in the health domain may encroach upon the HRS.

- Part 1: The HRS and the Anticipation of the Risks and Benefits of Science
- Part 2: The HRS in the Health Context
- Part 3: The HRS and the Child's Right to Health

Building upon its unique position as an honest broker, GESDA has sought to integrate these reflections across platforms. Interest in the topic has grown as GESDA illustrated the convergences between "hard" science, law, philosophy, and other human and social sciences.

Some of the symposium's outcomes will be published in relevant journals.

### Outlook

The HRS calls for everyone to have access to and the opportunity to benefit from and contribute to science. It also says that all people are entitled to be well-informed in all relevant matters pertaining to science, and to have the freedom to live in an environment that promotes science and technology and provides the conditions needed for scientific research.

Anticipating the impact of scientific advances – both the opportunities and risks – and finding a path to citizen participation and inclusiveness are cornerstones in all of GESDA's activities. Reviving the Human Right to Science in a way we can use it to address both current and future challenges and to match the dizzying pace of scientific and technological progress is a cross-cutting objective for the Foundation, and one that will continue to be pursued for years to come.

*"To the extent that GESDA's focus is on anticipation – anticipation of the science in the making and of the science to come – it's interesting for us to explore anticipation under the human right to participate in science in the context of plans to reinvigorate the right."*

Samantha Besson,  
Professor, International Law of  
Institutions, Collège de France  
and University of Fribourg, and  
GESDA Board Member



## 10. GESDA launches its Impact Forum

Following the 10-year extension of its mandate, GESDA launched its Impact Forum to catalyze the resources and expertise that are needed for its scale-up phase.

With financing for international impact continuing to be a challenge, GESDA confirmed its ambition to launch an Impact Forum and related Impact Funds led by GESDA Board Vice-Chairman Patrick Aebischer, who is president emeritus of EPFL. Their purpose is to provide the needed resources to implement the most promising solution ideas and initiatives, based on emerging science, for the benefit of all of humanity.

### Supporting the Foundation's growth with means, expertise, and financial resources

The goal of the Impact Forum is to **provide the Foundation with the means, expertise and financial resources needed for its development and growth**. In particular, the Impact Forum will be tasked with obtaining financial support from private and public non-commercial partners over the next 10 years to finance GESDA's solution ideas and initiatives and to benefit the Geneva and Swiss multilateral ecosystems.

### A first pilot: supporting the launch of the Open Quantum Institute (OQI)

GESDA plans to progressively develop the Impact Forum in conjunction with the solution ideas emerging from the Radar®. Its first pilot demonstrator project will be to support the launch of the OQI by providing the necessary resources, expertise and guidance from the impact community.

*"With the GESDA Science Breakthrough Radar®, which feeds the Anticipatory Situation Room to come with Solutions Ideas (the accelerator), we are now ready to create an Impact Forum with related Impact Funds to support advances on subjects that are highly disruptive and to ensure that we are going to use them the proper way.*

*That is where we are going to rely on innovating new financing schemes, which are going to be public-private by definition. In that vision, innovation does not only include the startups, the established companies, but also the public and philanthropic institutions. We need to get together."*

Patrick Aebischer,  
Vice-chairman of the Board of Directors; Chair of the Impact Forum and related Impact Funds, GESDA



## 11. Effective partnerships for a renewed multilateralism

Through its solution ideas and pilot demonstrators, GESDA has initiated impact-oriented partnerships within the international ecosystem, in Geneva and globally, that will help renew and increase the effectiveness of our multilateral system.

### Academic and Diplomatic Partnerships

In 2022, GESDA significantly sped up the pace of its partnership building with a wide range of stakeholders within the academic and diplomatic communities of Geneva, Switzerland and the world. One of the Foundation's strategies has been to build solid and long-lasting relationships through co-designing, managing, and implementing specific joint activities.

As highlighted earlier, the Global Curriculum on Science and Diplomacy, the Geneva Science Diplomacy Week and the UCT-GESDA Youth and Anticipation Initiative all resulted from a consistent effort to bridge complementary competences and common interests. The Global Science Diplomacy Curriculum illustrates how the Foundation creates synergies by leveraging the strengths of its partners in the Geneva Coalition on anticipatory Science and Diplomacy created in October 2021.

### Multidisciplinary partnerships to bridge all four GESDA communities

GESDA acts as a bridge between the different mindsets of the governments, academic world, international organizations, businesses and citizens, in particular by building partnerships and collaborations with multiple stakeholders from its communities of practice.

## Overview of GESDA main current partnerships

Project ↓	Community →	Academic	Diplomatic	Impact	Citizen
<b>Geopolitical Lense of the GESDA Science Breakthrough Radar®</b>		Columbia University	Geneva Centre for Security Policy (GCSP)		
<b>Solution Idea: Open Quantum Institute</b>	CERN, EPFL, ETH, Jülich FZ, Imperial College London, NITheCS, Quantum Delta NL, Raman Research Institute, Uni. Calgary, Uni. Copenhagen, Uni Geneva, Uni KwaZulu-Natal	<u>Permanent Missions of Australia, Austria, Brazil, France, Japan, Malta, Mexico, Morocco, Netherlands, Pakistan, Singapore, Switzerland</u> <u>International Organizations</u> Gain, ICRC, Periodic Table of Food Initiative, SDG Lab, UN Habitat, UNFCCC, World Food Program, WIPO, WHO	AQT, AWS, IBM, IQM, Microsoft, OQC, Pascal, Strangeworks		Fondazione Compagnia di San Paolo, XPRIZE Foundation
<b>Solution Idea: Global Curriculum on Science and Diplomacy</b>	ETH, Uni. Zürich, Graduate Institute Geneva, International Science Council, CERN	DiploFoundation, GCSP, SiDLab, Geneva Science Policy Interface, Unitar, International Network for Government Science advice, IPU, SDG Lab			
<b>Pipeline of (further) Solution Ideas: - NeuroTech Compass - Decarb Accelerator</b>	EPFL, ETHZ, Leopoldina,	UNESCO, ISO	Siemens, Maersk		
<b>Pilot demonstrator: Geneva Science Diplomacy Week</b>	ETH, Uni. Zürich, Graduate Institute Geneva, International Science Council, CERN, EPFL	DiploFoundation, GCSP, SiDLab, Geneva Science Policy Interface, Unitar, International Network for Government Science advice, WMO, IPU, SDG Lab, Swissnex, ICRC, Geneva Water Hub, Transnational Red Sea Center	Cyber Peace Institute		Asuera Stiftung
<b>Pilot demonstrator: Youth and Anticipation Initiative</b>	Uni. Cape Town (UCT)				
<b>Pilot demonstrator: Human Rights to Science Initiative</b>	Uni Fribourg, Collège de France, McGill University	UNHCR, UNESCO, ECOSOC			

## 12. Increased visibility and global reach of GESDA

GESDA's intensified engagement activities, community management and communication effort.

### An increased presence and visibility across all activities

2022 marked the 3<sup>rd</sup> year of GESDA's operations, while most of the focus of the Foundation remained directed toward delivery of its key products, GESDA has increased its effort in communication and outreach to support its global growth.

As highlighted in the previous key results, the different activities, products, and initiatives from GESDA's portfolio have grown and are starting to get significant traction and interest from the target communities.

The coverage was significantly driven by the two major events – the first Science Diplomacy Week in May and the second Geneva Science and Diplomacy Anticipation Summit in October – and by the extension of GESDA's mandate and renewed support by the Swiss and Geneva governments in April.

From a global awareness perspective, the 40% increase in the Summit participation and the growing interest for the GESDA Science Breakthrough Radar® (+15,000 new users on the Radar Digital Platform in 2022) are a few solid indicators of GESDA successful take-up.

### Spotlight on the 2022 Geneva Science and Diplomacy Anticipation Summit Traditional media coverage

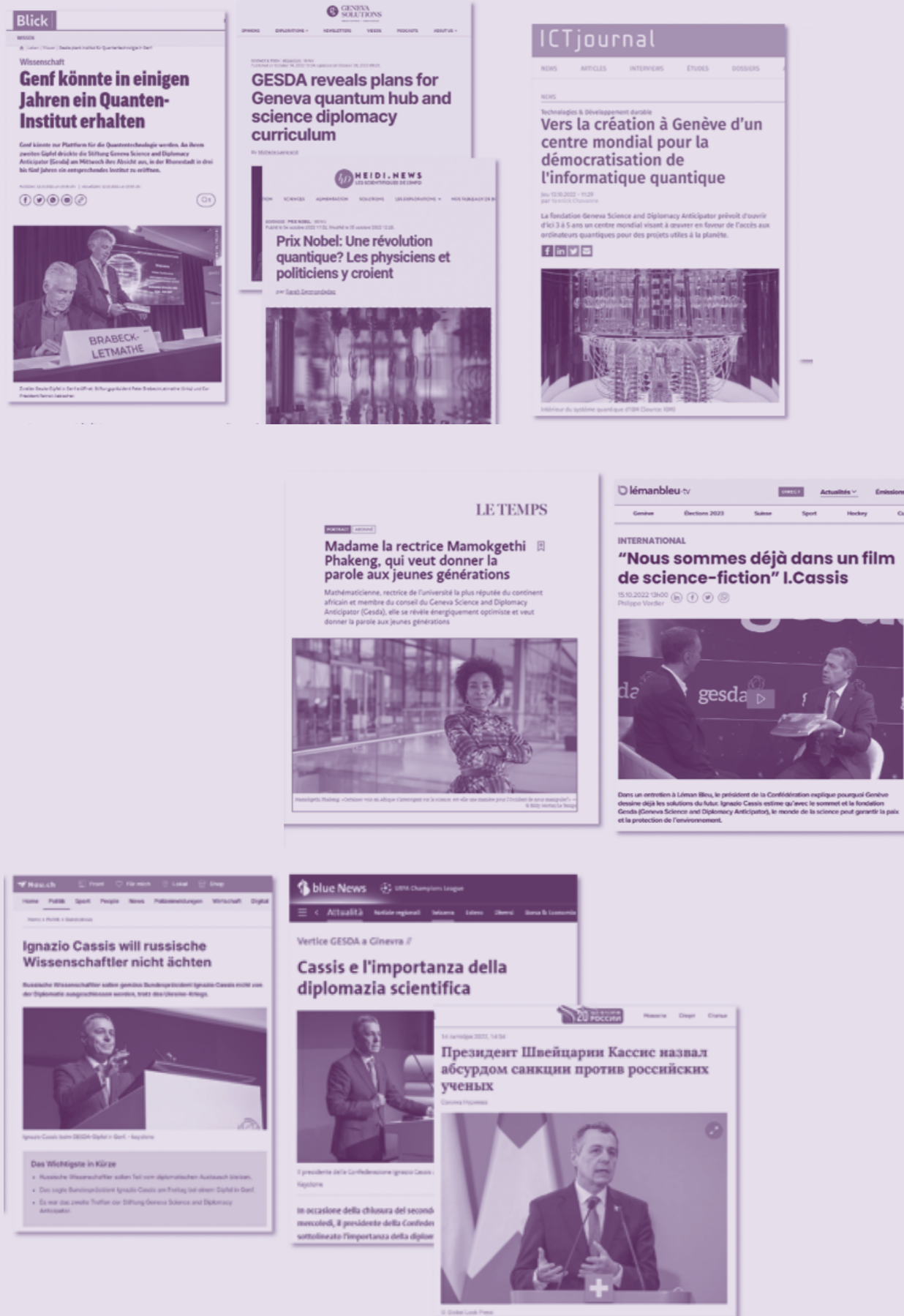
On 12. October, GESDA kick-started the second edition of its Geneva Science and Diplomacy Anticipation Summit with a Press Conference focused on a few key messages and in the presence of six key members of the Foundation Board and Fora.

With 29 % of dedicated media coverage, the announcement of the **Open Quantum Institute and its possible set-up in Geneva** is the topic that received the strongest engagement, closely followed by the closing statement by the Swiss President, Ignazio Cassis.

Innovation of this second edition, the 2022 Summit featured a plenary session on Friday dedicated to discussing the key emerging topics and debating solution ideas from a political assessment perspective. Together with the Ministerial meeting held on Thursday 13. October, these highlights illustrated how GESDA successfully managed to bring together Science and Diplomacy, an achievement that was also well relayed by the media and the communities online.

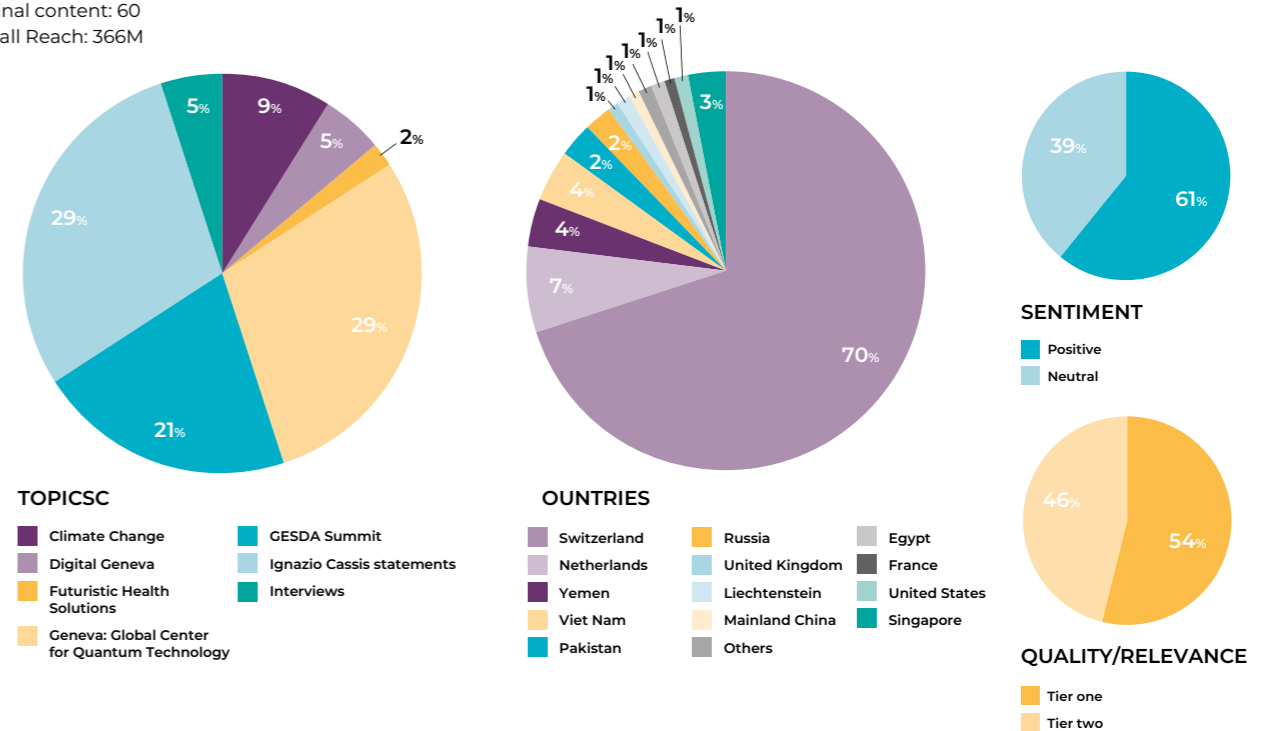
### Altogether, the 2022 Summit resulted in 163 articles and garnered over 366 million mentions.

A significant part of the coverage originated from Swiss media (70%), contributing to a positive impact for Geneva as an operational hub of the international system.



### GESDA media analysis - Summit 2022

**GESDA coverage in numbers**  
 Total number of articles: 163  
 Original content: 60  
 Overall Reach: 366M



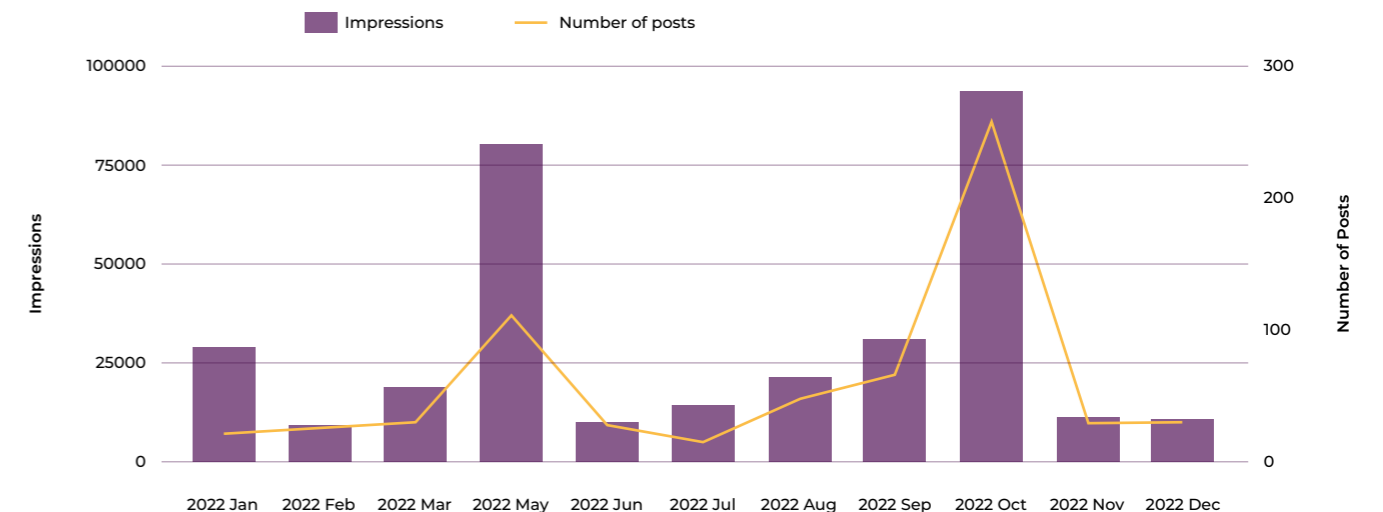
### A strong impact on social media

GESDA has also made a **strong impact on social media** in 2022 and now counts more than 4000 followers on each of its platforms - Twitter and LinkedIn - **53% growth year-on-year**.

With more than 1100 posts (737 on Twitter and 363 on LinkedIn), GESDA has kept building its audience through rich content and differentiated strategy. GESDA has maintained a constant and regular publication pace over the year and targeted intensive campaigns around its key milestones, the Geneva Science and Diplomacy Week in May and the Geneva Science and Diplomacy Anticipation Summit in October.

### Twitter Impressions

Impressions are closely tied to number of posts and peak around events.



**During the 2022 Summit,**

- GESDA has published **237 Tweets** generating **64,000 impressions**
- **#GESDAsummit** and **#ScienceDiplomacy** were included in 1316 Tweets
- Social media coverage was driven by high-profile participants and influential users
- GESDA has **gained 200 new followers** including influential accounts such as @UNGeneva which has 870,000 followers

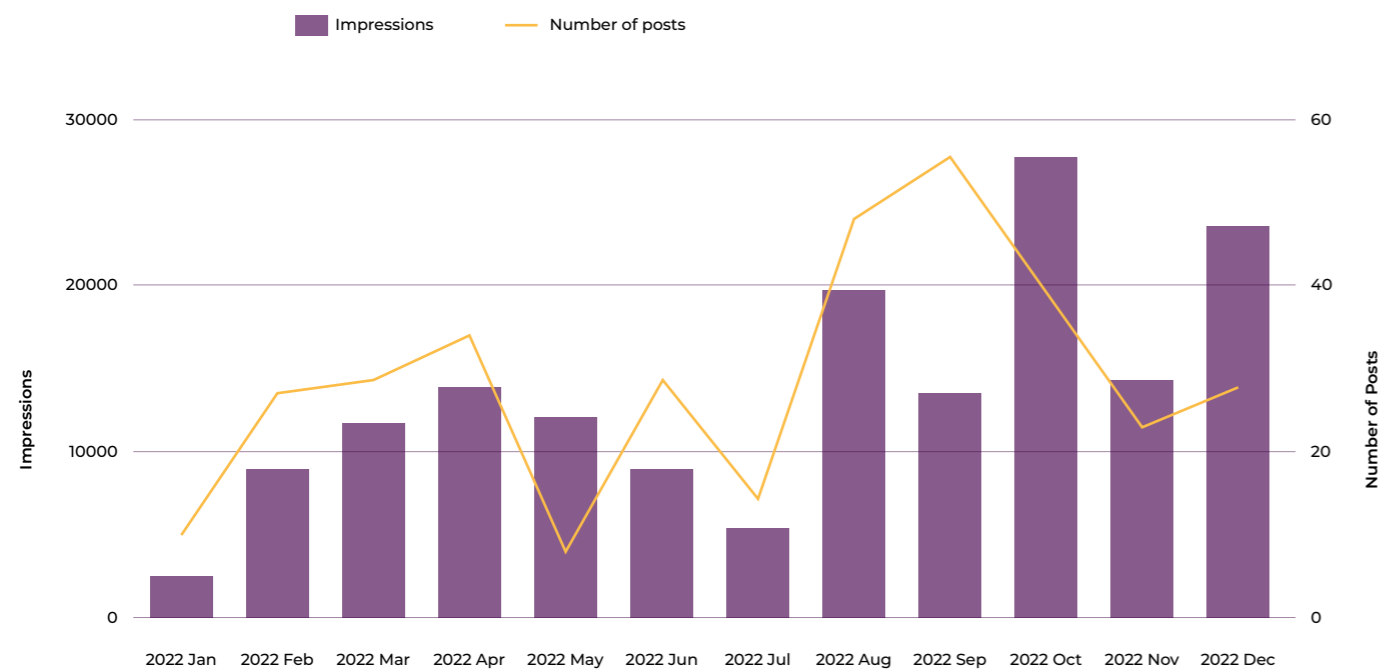
The Summit and the Science Diplomacy Week (16. to 20. May) are two major milestones of GESDA's annual activities and key opportunities to engage with its communities. These intensive targeted social media campaigns allowed GESDA to capitalize on these events and to increase its reach, complementing the other outreach activities the Foundation has been implementing.

In 2022, GESDA has also published **363 articles on LinkedIn**. Publications on that platform build upon Emerging Topics and Breakthroughs from the GESDA Science Breakthrough Radar® and are more detailed, providing in-depth experience to the readers.

Together, Twitter and LinkedIn provide both live engagement (Twitter) with reactivity and interactions, raising awareness on GESDA through events and conferences, and continuous in-depth engagement (LinkedIn) leveraging the Radar and supporting GESDA's positioning as an honest broker for science diplomacy.

**LinkedIn Impressions**

January 2022 - December 2022



**Beyond media, GESDA's visibility benefits from its consistent strategy**

GESDA has built a communication strategy which is consistent with its objectives. In 2022, GESDA

- has been increasingly cited and promoted by key stakeholders:
  - » November's "**UK Parliament Note**" mentions GESDA's work on Science Diplomacy
  - » The 2022 Summit is covered by an official press release of **the Ministry of Foreign Affairs of Singapore**, including the complete transcript of its Minister for Foreign Affairs Dr Vivian Balakrishnan
  - » **Health Policy Watch** dedicated an in-depth article on Dengue research, highlighting **GESDA alongside the WHO**, as a legitimate reference
  - » **The National News UAE** published an interview of GESDA Executive Director Science Anticipator, Martin Müller after his presentation of the GESDA Science Breakthrough Radar® at the Abu Dhabi Space Debate in December. The article focused in particular on the Radar emerging topic dedicated to space resources within Trend 3 Eco-Regeneration & Geoengineering
- And has been able to translate its visibility to support its activities
  - » The attendance of the 2022 Geneva Science and Diplomacy Anticipation summit has grown by 40% compared to 2021 edition,
  - » The number of **scientists contributing** to the 2022 GESDA Science Breakthrough Radar® went from **543 to 774** and
  - » The inaugural edition of the Science Diplomacy week has already generated **130 applications from approx. 50 countries**, out of which 30 high-profile candidates have been selected to participate in the Immersion Program.
  - » **31 institutions and international organisations**, along with **Permanent Missions of 12 countries** have already expressed their support and intention to contribute to the Open Quantum Institute, the first of the two Solution Ideas unveiled at the Summit.

These few key figures illustrate that the efforts in communication and outreach invested by GESDA are proving effective and showing the buy-in of the communities into the Foundation's activities and products.

They also confirm that GESDA is filling gaps and is progressively gaining legitimacy as an honest broker of anticipatory science diplomacy.

GESDA is progressively settling into the international environment and its growing global visibility further strengthens the position of Geneva as an operational hub of the international system and as a central playground for renewed multilateralism.



# 5 2019 – 2022, GESDA's pilot-phase in facts and figures

2022 has been a pivotal year for GESDA, with the decision by the Swiss and Geneva governments to extend the Foundation's mandate for 10 years. That marked the end of a successful 3-year pilot phase. This 2022 Activity Report is an opportunity to look back from a high-level perspective at what GESDA has achieved.

## 5.1. Science Anticipation

	2019 - 2020	2021
<b>Objective</b>	<b>Objectives:</b> <ul style="list-style-type: none"> <li>• Create the <b>Academic Forum</b></li> <li>• Publish the <b>1<sup>st</sup> Anticipatory Breakthrough Report</b>, mapping what's cooking in the labs" in four scientific platforms</li> <li>• Prepare Scientific Anticipatory Briefs (SABs)</li> </ul>	<b>Objectives:</b> <ul style="list-style-type: none"> <li>• Mobilize scientific experts in <b>joint task forces</b> with experts from the diplomatic, business and citizen communities</li> <li>• The Anticipatory Breakthrough Report <b>mapping is further developed and updated</b></li> </ul>
<b>Results</b>	<b>1 Anticipatory Breakthrough Report</b> , from a 5, 10, and 25-year perspective	<b>First edition</b> of the GESDA Science Breakthrough Radar®
	<b>4 scientific frontier issues identified:</b> Quantum Revolution & Advanced Artificial Intelligence, Human Augmentation, Eco-regeneration & Geoengineering, and Science & Diplomacy	<b>4 scientific platforms:</b> Quantum Revolution & Advanced Artificial Intelligence, Human Augmentation, Eco-regeneration & Geoengineering, Science & Diplomacy
	<b>12 Scientific Anticipatory Briefs</b>	<b>24 emerging topics</b>
	Preparatory work for the Right to Science Symposium at the Brocher Foundation	<b>3 fundamental issues</b> for the future - debated by eight specialists in philosophy, human sciences, and the arts
	<b>68 academic scientific experts</b>	<b>543 contributing scientists</b>
	<b>30 breakthroughs at 5, 10 and 25 years</b>	<b>216 breakthroughs at 5, 10 and 25 years</b>
		<b>11 million social media messages</b> taking the pulse of society
		Enabled by the support of the <b>Fondation pour Genève</b> and collaboration with the <b>publisher Frontiers</b>
	<b>Resulting in:</b> <b>22,701</b> views on the digital platform <b>5,612</b> unique users from <b>106</b> countries	
<b>Benefits for the Founders</b>	Mobilization and enhancement of Geneva as an operational center for multilateral cooperation through the involvement of international organizations in cutting-edge scientific work to accelerate the achievement of their objectives.	

	2022
<b>Objective</b>	<b>Objectives:</b> <ul style="list-style-type: none"> <li>• <b>Assess the relevance of the 4 initial scientific platforms</b> and adapting if necessary</li> <li>• Prepare the <b>2<sup>nd</sup> GESDA Science Breakthrough Radar®</b></li> </ul>
<b>Results</b>	<b>2<sup>nd</sup> edition</b> of the GESDA Science Breakthrough Radar®
	<b>Addition of Knowledge Foundations as 5<sup>th</sup> scientific platform</b> , covering transversal areas from the perspective of their impact on individuals / society / planet. It covers topics from basic sciences, engineering sciences, social sciences, and the humanities.
	<b>37</b> emerging topics
	<b>Broaden</b> the scope with <b>philosophical</b> and <b>geopolitical lenses</b>
	<b>774</b> leading scientists
	<b>336</b> breakthroughs at 5, 10 and 25 years
	<b>Add the monitoring actions that people are taking to the pulse of society</b>
	In close <b>collaboration with Fondation pour Genève</b>
	<b>Resulting in:</b> <b>47,000</b> new views on the digital platform <b>15,000</b> new users from <b>154</b> countries
	<b>Benefits for the Founders</b>

## 5.2. Diplomacy Acceleration

	2019 - 2020	2021
<b>Objective</b>	<p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>Develop a <b>tailored methodology</b> to consider the four <b>relevant communities</b> with a <b>focus on scientific anticipation</b></li> <li><b>Build a community of diplomacy experts</b> from international organizations in Geneva and globally, supporting GESDA's mission</li> <li>Within the community and through the SABs, <b>kick-start the work of identifying possible solution ideas</b> that address the emerging topics</li> </ul>	<p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li><b>Deploy the methodology</b> across all activities with the support of the Foundation Board to ensure global reach</li> <li>Create <b>joint task forces</b> with experts from the communities to <b>co-design solution ideas</b> based on the Radar outcomes up to the development of business plans</li> <li>Two of <b>these initiatives are prioritized</b>, receiving support and resources towards their incubation</li> </ul>
<b>Results</b>	<ul style="list-style-type: none"> <li><b>17</b> diplomacy moderators <b>with</b> representatives of politics, diplomacy, geopolitics, transversal international organizations, chief scientists, impact and citizen communities</li> <li><b>First Science &amp; Diplomacy Plenary</b> with participants taking part in 20 breakout sessions effectively kick-starting <b>efforts to identify what multilateral initiatives are needed</b> to ensure that anticipated scientific breakthroughs are used for the greatest benefit to humanity</li> <li><b>63</b> participants helped prioritize initiatives that GESDA will explore and implement from 2021 onwards</li> <li>Scoring of the <b>Scientific Anticipatory Briefs' impact</b> on people, society and the planet, and pertinence to the UN SDGs</li> <li><b>Preparatory work</b> for the Right to Science Symposium at the Brocher Foundation</li> <li><b>35</b> international organizations met, and 20 contacts were appointed to closely follow our activities</li> <li><b>Over 80</b> informal contacts with other key International Geneva stakeholders</li> <li>Extensive <b>awareness building</b> with more than 50 diplomatic missions in Geneva</li> </ul>	<ul style="list-style-type: none"> <li>Formalize the <b>Diplomacy Forum Including societal and political implications</b> in the GESDA methodology through, in particular, the International Network for Government Science Advice (INGSA) and the Foreign Ministries Science &amp; Technology Advice Network (FMSTAN)</li> <li><b>Submission to the founders of a plan for scaling up GESDA</b>, including an evaluation report of the pilot phase</li> <li><b>First edition</b> of the Geneva Science and Diplomacy Anticipation Summit</li> <li><b>939 participants</b> registered</li> <li><b>108 speakers</b> and moderators from 33 countries</li> <li><b>16 emerging topics</b> from the Radar</li> <li><b>23 global challenges</b> of significance for diplomacy and of benefit to the fulfillment of the 17 UN Sustainable Development Goals for 2030</li> <li><b>8 working groups</b> bringing together <b>scientists and diplomats</b> assessing in depth the potential, for people, society, and the planet, of</li> <li><b>8 breakthroughs</b> discussed during the Summit.</li> <li><b>1 working group</b> leading preliminary work to propose a Geneva Manifesto on the Right to Science in 2022/2023</li> <li><b>Initial public-private partnership</b> with the United Nations and strong participation of the UN agencies in the GESDA task forces</li> <li><b>First international partnership</b> with a global foundation: Open Society Foundations (OSF)</li> <li><b>Intensifying the pace of collaboration</b> with international organizations in Geneva and beyond, including the SDG Lab Geneva, Geneva Cities Hub and Geneva Science Policy Interface</li> <li><b>Digital diplomacy</b> involvement with ambassadors and permanent missions in Geneva, the Geneva Internet Platform, CyberPeace Institute, and Swiss Digital Initiative</li> <li><b>Science diplomacy / Anticipation</b> with the University of Geneva, Graduate Institute Geneva, ETH Zurich, EPFL, University of Zurich and partners in collaboration with Secretary of State for Education, Research and Innovation Martina Hirayama</li> </ul>
<b>Benefits for the Founders</b>	<p>Attract new multilateral proponents to Geneva Collaborate with the Founders to raise their visibility in news and social media</p>	

	2022
<b>Objective</b>	<p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>The <b>methodology is evaluated</b>, and proposals are articulated for <b>optimization beyond the pilot phase</b></li> </ul>
<b>Results</b>	<ul style="list-style-type: none"> <li><b>1<sup>st</sup> Science Diplomacy Week</b> with an immersion program and an open forum including Geneva-based partners and global collaborations</li> <li>Announce <b>the creation of a Global Curriculum on Science and Diplomacy</b></li> <li><b>GESDA founders extend the mandate and support for GESDA Foundation to the next 10 years</b>, on the basis of a proposal submitted at the end of 2021</li> <li>2<sup>nd</sup> edition of the Geneva Science and Diplomacy Anticipation Summit</li> <li><b>1267 participants</b> (+40%)</li> <li><b>152 speakers</b> and moderators from <b>46 countries</b></li> <li><b>21 sessions:</b> Panels, Debates and Solution Ideas.</li> <li><b>A High-Level Political Segment</b> with President Ignazio Cassis and ministers from Estonia, Mexico, Morocco, Singapore, and United Arab Emirates</li> <li><b>4 Solution Ideas</b> presented</li> <li>The topics, debates and solution ideas resulted from the Radar, task forces and outcomes of the 1st edition of the summit in 2021.</li> <li><b>First GESDA Symposium on reviving the Human Right to Science</b> at the Brocher Foundation in December</li> <li><b>Continue efforts</b> to build long-lasting partnerships with Geneva-based organizations and international stakeholders: <ul style="list-style-type: none"> <li><b>&gt;60 meetings involving stakeholders from the Diplomacy</b> community, Official Delegations and International Organisations</li> <li>GESDA has met with representatives from more than <b>45 countries</b>.</li> <li><b>&gt;22 meetings and 6 diplomatic dinners</b> of the Solution Idea Task Forces which include Diplomacy Stakeholders</li> <li>A full list of the meetings is provided at the end of the chapter</li> <li><b>41 Speakers and 380 participants</b> at the Summit belong to the Diplomacy Community (+30%)</li> </ul> </li> <li>Kick-start work on <b>the Future of Peace and War</b> with Columbia University and the GCSP</li> <li>Multiply <b>activities in capacity-building and training</b> for and with major proponents of science diplomacy</li> <li>Provide <b>intelligence briefings</b> and introduce GESDA's know-how to global stakeholders, policymakers and the diplomatic community</li> <li><b>Develop interaction</b> with the science and diplomacy hubs developed in Bern and Geneva by the Swiss Special Representative for Science Diplomacy and his colleagues.</li> </ul>
<b>Benefits for the Founders</b>	<p>Attract new multilateral proponents to Geneva Collaborate with the Founders to raise their visibility in news and social media</p>

### 5.3. Partnerships, Impact Funding and Practical Translation

	2019 - 2020	2021
<b>Objective</b>	<p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>• Prepare a <b>context analysis</b> exploring the landscape and identify potential partnerships toward the implementation of the initiatives</li> <li>• Plan the implementation of an <b>impact fund for science and diplomacy</b></li> <li>• Launch a <b>fundraising campaign</b> aimed at securing funding for the Foundation's core activities and the launch of its initiatives</li> </ul>	<p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>• Secure <b>new private funding</b> towards GESDA's financial sustainability</li> <li>• Build an <b>active impact community</b></li> <li>• Kick-start activities to <b>stimulate engagement with citizens</b></li> </ul>
<b>Results</b>	<ul style="list-style-type: none"> <li>• Representatives of the impact and citizen communities are initially included in the Diplomacy Forum</li> </ul>	<ul style="list-style-type: none"> <li>• Monitor science publications, news outlets and social media, and analyze millions of posts to take <b>the pulse of society</b> on emerging topics</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>CHF 3 million in private philanthropic funding</b> raised since June 2019, matching the public sector seed funding</li> <li>• <b>Context analysis</b> that identified 80 potential partners</li> <li>• <b>Initial partnership</b> with Fondation Botnar on AI and health (I-DAIR)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Partnership with XPRIZE Foundation</b>, which decides to <b>install its European Headquarters in Geneva</b></li> <li>• <b>2 initiatives announced in October to start in 2022:</b> <ul style="list-style-type: none"> <li>• Geneva Science and Diplomacy Capacity Building Initiative including <b>16</b> partners to date</li> <li>• Joint GESDA/XPRIZE Quantum Competition</li> </ul> </li> <li>• <b>4 new Foundations partner with GESDA Foundation, increasing to CHF 6.4 million the amount of private philanthropic funding</b> raised since June 2019 that is in addition to the public contributions of CHF 3.6 million (Fondation pour Genève, Asuera Stiftung, Open Society Foundation, XPRIZE Foundation)</li> <li>• <b>12 thematic partnerships</b> under development</li> </ul>
<b>Benefits for the Founders</b>	Mobilization of new funding for International Geneva Stronger collaboration with the Founders	

	2022
<b>Objective</b>	<p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>• <b>Ensure available funding for initiatives</b> to be incubated by GESDA</li> </ul>
<b>Results</b>	<ul style="list-style-type: none"> <li>• <b>Creation of the Impact Forum and Citizens Forum</b> is announced at the 2022 Summit</li> <li>• <b>1<sup>st</sup> UCT-GESDA Youth Anticipation initiative</b> (Cape Town in July)</li> <li>• <b>1<sup>st</sup> Science Diplomacy Week</b> with an immersion program and open forum among partners in Geneva and worldwide</li> <li>• Add <b>monitoring to taking the pulse of society</b></li> </ul>
	<ul style="list-style-type: none"> <li>• GESDA announces <b>the incubation of the first two initiatives</b> from a pipeline of 8 solution ideas: <ul style="list-style-type: none"> <li>• Open Quantum Institute (OQI)</li> <li>• Global Curriculum on Science and Diplomacy</li> </ul> </li> <li>• By the end of the year, GESDA had received support letters for the OQI from over <b>30</b> organizations, institutions, companies, and foundations, and from 12 nations' permanent missions in Geneva</li> <li>• The Global Curriculum on Science and Diplomacy gathers <b>over 16 partners</b> - and the number is growing</li> </ul>
<b>Benefits for the Founders</b>	Mobilization of new funding for International Geneva Stronger collaboration with the Founders

## 5.4. Global Visibility and Contribution to International Geneva

	2019 - 2020	2021
<b>Objective</b>	<b>Objectives:</b> <ul style="list-style-type: none"> <li>• Create an environment enabling <b>GESDA's visibility and integration</b> within the International Geneva landscape</li> <li>• Initiate activities toward <b>reviving the Human Right to Science (HRS)</b></li> <li>• <b>Implement communication tools</b> and platforms</li> <li>• Launch the <b>first targeted events</b></li> </ul>	<b>Objectives:</b> <ul style="list-style-type: none"> <li>• <b>Strengthen GESDA's integration</b> and visibility on the International Geneva landscape</li> <li>• <b>Clarify the concept of anticipation</b> in science diplomacy</li> <li>• <b>Strengthen the visibility of GESDA's activities</b> through communication around the GESDA Science Breakthrough Radar®</li> <li>• <b>Establish partnerships with major stakeholders</b> (Founders, UN, States, WEF)</li> </ul>
<b>Results</b>	<ul style="list-style-type: none"> <li>• <b>1,000 followers</b> on communication channels</li> <li>• <b>Best Reads (weekly):</b> 19 editions since August 2020 and 230 subscribers</li> <li>• <b>Launch of GESDA website</b></li> <li>• Landing page launched on 9 December 2019, enhanced website online since 9 December 2020</li> </ul>	<ul style="list-style-type: none"> <li>• <b>6,000 followers</b> on communication channels, including:                             <ul style="list-style-type: none"> <li>• 3,586 followers on Twitter</li> <li>• 1,579 followers on LinkedIn</li> </ul> </li> <li>• <b>GESDA Best Reads: 36</b> editions in 2021 and <b>462</b> subscribers</li> <li>• <b>The digital platform of the Radar</b> totaled 5,612 unique visitors in the first 3 months after its launch in October</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>One content partnership</b> with Geneva Solutions digital news platform</li> <li>• <b>Contributions to three reports</b> and three events related to International Geneva:                             <ul style="list-style-type: none"> <li>• 100th Anniversary of the League of Nations (16 September 2019)</li> <li>• Geneva Day at WEF 2020</li> <li>• IHEID/ EPFL Data Summit 2025</li> <li>• Fondation pour Genève reports on health and the internet</li> <li>• Geneva Digital Atlas</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Media partnerships</b> with the SRG SSR Swiss Broadcasting Corporation, Geneva Solutions and Léman Bleu.</li> <li>• <b>Media partnership with the European Broadcasting Union (EBU)</b> through SRG SSR</li> <li>• <b>Relaying partnership</b> with Neo.Life</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>One press conference</b> 20 February 2019</li> <li>• <b>One progress report</b> 15 July 2020</li> <li>• <b>Two press releases</b> 9 December 2019 &amp; 17 December 2020</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Two press conferences</b> 21 July &amp; 7 October</li> <li>• <b>6 press releases</b> 13 April, 19 July, 21 July, 1 October, 7 October and 8 October</li> <li>• <b>1,200 articles mentioning Geneva, Switzerland and GESDA</b> in the press and on social media</li> </ul>
<b>Benefits for the Founders</b>	Echo and amplify International Geneva's position as a thought leader in anticipatory science diplomacy Contribute to the visibility of Geneva in news outlets and social media	

	2022
<b>Objective</b>	<b>Objectives:</b> <ul style="list-style-type: none"> <li>• Communicate the results of the pilot phase evaluation and of future perspectives in GESDA's development</li> <li>• Publish the second edition of the Radar as <b>a new annual reference tool</b> for communities</li> </ul>
<b>Results</b>	<ul style="list-style-type: none"> <li>• <b>10,000 followers</b> on communication channels, including:                             <ul style="list-style-type: none"> <li>• 4,500 followers on Twitter with 740 tweets published, generating 350,000 views &amp; 14,000 clicks or retweets)</li> <li>• 4,200 followers on LinkedIn with 363 posts generating 250,000 views, 5,500 clicks and 3,000 comments</li> </ul> </li> <li>• <b>GESDA Best Reads: 31</b> editions in 2022 and <b>500</b> subscribers</li> <li>• <b>The digital platform of the Radar</b> reached 15,000 new users in 2022</li> </ul>
	<ul style="list-style-type: none"> <li>• In 2022, GESDA has been <b>cited and promoted</b> by key stakeholders:                             <ul style="list-style-type: none"> <li>• November's <b>"UK Parliament Note"</b> outlines GESDA's work on science diplomacy</li> <li>• At the 2022 Summit, Singapore's <b>Ministry of Foreign Affairs issued an official press release</b> including the transcript of Foreign Minister Dr Vivian Balakrishnan</li> <li>• Health Policy Watch dedicated an in-depth <b>article on dengue viral research, highlighting GESDA alongside WHO.</b></li> </ul> </li> <li>• The increasing participation at the summit, growing number of contributing scientists to the Radar, and the active interest in the OQI and Curriculum all underline a <b>positive trend and growing interest in GESDA and its activities</b></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>One press conference</b> 12 October 2022</li> <li>• <b>6 press releases</b> 12 January, 22 April, 22 September, 12 October, 14 October, 13 November</li> <li>• <b>163 press articles</b> mentioning GESDA during the Summit</li> </ul>
<b>Benefits for the Founders</b>	Echo and amplify International Geneva's position as a thought leader in anticipatory science diplomacy Contribute to the visibility of Geneva in news outlets and social media

## Outlook of GESDA's Meetings with Diplomacy Community Stakeholders in 2022

14.01.22	<b>Meeting of the Foreign Ministries Science &amp; Technology Advice Network (FMSTAN)</b> with representatives from Chile, Ghana, Japan, Kazakhstan, Kenya, Malaysia, New Zealand, the United Kingdom, the United States of America, Oman, Panama, Poland, Senegal, South Africa, Ukraine, Vietnam
19.01.22	Meeting with a <b>Delegation from Japan</b>
01.02.22	<b>Executive Briefing at the United Nations Office at Geneva</b> with representatives from Bulgaria, Cyprus, Greece, Ghana, Israel, Malta, Morocco, the Netherlands, Pakistan, the Russian Federation, the Slovak Republic, Slovenia, Sweden, the United Kingdom of Great Britain and Northern Ireland. <b>And with representatives from International Organisations:</b> UNDP, UNIDIR, IDLO, DCAF, UNICEF, UK Mission, ITU, Interpeace, Global Community Engagement and Resilience Fund, Holy See, UN Women Liaison Office Geneva, UNOG
08.02.22	<b>Solution Idea Diplomatic Dinner</b>
01.03.22	Meeting with a <b>Delegation from Liechtenstein</b>
04.03.22	Meeting with a <b>Delegation from Brazil</b>
10.03.22	Meeting of the <b>Foreign Ministries Science &amp; Technology Advice Network (FMSTAN)</b>
10.03.22	Meeting with a <b>Delegation from Mongolia</b>
23.03.22	Meeting with a <b>Delegation from the Netherlands</b>
04.05.22	Meeting with a <b>Scientific Delegation from Germany</b>
13.05.22	Meeting with a <b>Delegation from Singapore</b>
17.05.22	<b>Solution Idea Diplomatic Dinner</b>
17.05.22	Meeting with <b>the UN Heads of Information</b>
17.05.22	Meeting with a <b>Delegation from the Institut Des Hautes Etudes De Dřfense Nationale (IHEDN)</b>
25.05.22	Meeting with a <b>Delegation from Thailand</b>
03.06.22	Meeting with <b>United States Staffers</b>
08.06.22	Meeting with a <b>Delegation from Japan</b>
13.06.22	Meeting with a <b>Delegation from Wallonie Brusells, Belgium</b>
21.06.22	<b>Solution Idea Diplomatic Dinner</b>
20.07.22	Meeting with a <b>Delegation from Malta</b>
10.08.22	Meeting with a <b>Delegation from Japan</b>
11.08.22	Meeting with a <b>Delegation from Israel</b>

24.08.22	Briefing with <b>ICRC Innovation and Foresight unit</b>
12.09.22	<b>Visit from the OECD Council, the OECD Secretary General, Ambassadors and Permanent Representatives to the OECD</b> from Belgium, Chile, Denmark, Germany, Finland, Greece, Hungary, Lithuania, The Netherlands, Poland, the Slovak Republic and Switzerland
13.09.22	<b>Solution Idea Diplomatic Dinner</b>
14.09.22	Meeting with <b>the Office of the High Commissioner for Human Rights</b>
28.09.22	Meeting with a <b>Delegation from Austria</b>
14.10.22	<b>Meeting of the Foreign Ministries Science &amp; Technology Advice Network (FMSTAN)</b>
13.10.22	<b>Ministerial meeting between Singapore and Switzerland</b> during the 2022 Geneva Science and Diplomacy Anticipation Summit
13.10.22	Meeting with a <b>Member of the Parliament of the United Kingdom</b>
14.10.22	Meeting with a <b>Delegation from the United Arab Emirates</b>
24.10.22	Meeting with a <b>Delegation from Spain - Cataluña</b>
25.10.22	Meeting with a <b>Delegation from the Slovenian Ministry of Digital Transformation</b>
04.11.22	Meeting with <b>the Swiss Ministry of Foreign Affairs and a US Think Tank</b>
16.11.22	Meeting with <b>the UN Special Adviser for the Transforming Education Summit</b>
17.11.22	Meeting with a <b>Delegation from Mexico</b>
22.11.22	Meeting with <b>the Permanent Mission of the United Arab Emirates to the United Nations Office and other international organizations in Geneva</b>
25.11.22	Meeting with <b>the International Telecommunication Union (ITU) - Emerging Technologies Department</b>
02.12.22	Meeting with <b>Delegations from the Republic of Gambia, from the United Kingdom of Great Britain and Northern Ireland and from the United States of America</b>
06.12.22	Meeting with a <b>Delegation from Pakistan</b>
06.12.22	Meeting with a <b>Delegation from Australia</b>
13.12.22	<b>Solution Idea Diplomatic Dinner</b>
20.12.22	Meeting with a <b>Delegation from Morocco</b>
21.12.22	Meeting with a <b>Delegation from Israel</b>

# 6 Governance, compliance, finance

## 6.1. Governance

### Governance Structure

The Geneva Science Diplomacy Anticipator (GESDA) Foundation is an independent, private, not-for-profit foundation governed by Swiss law with its headquarters in Geneva.

GESDA was jointly founded by the Swiss and Geneva cantonal governments in close collaboration with the City of Geneva.

Initially established in September 2019 for a pilot phase of three years, the Foundation's statutes were amended on 22. April 2022 by the Board of Directors to extend its operations for 10 years (September 2022 to September 2032). The amended Statutes were approved by the Swiss Federal Authority Supervising Foundations on 26. August 2022.



The Foundation is governed by the **Foundation Board of Directors**, or Board of Directors (BoD), which serves as its ultimate decision-making body.

- The BoD is chaired by a President and Vice-President (the Chairman and Vice-Chairman), both of whom are appointed by mutual agreement between the founders
- At least one member is appointed by the Swiss Minister of Foreign Affairs with a formal decision of the Swiss Government,
- At least one member is appointed by the Geneva Government in collaboration with the city of Geneva,
- The Secretary General is a member of the Board of Directors

The Foundation Board is supported in its work by the **General Secretariat of the Board**.

The Foundation Board can delegate the daily supervision of the Foundation's affairs to a Board Committee: the **Chairman's Committee**, which consists of the Chairman and Vice-Chairman of the Foundation Board, the Secretary General, the Chairs of the Fora, and the CEO.

The Foundation Board has appointed an **Executive Team**, under the leadership of the **Chief Executive Officer (CEO)**, which oversees the implementation of the strategy and ensures GESDA's global operation. The Board and the CEO are supported and advised by the **Fora** and thematic expert groups and is generally chaired by members of the Board. There are 4 Fora: **Academic, Diplomatic, Impact and Citizens**.

### Solution Idea Task Forces and Advisory Board to the Radar

In addition, as GESDA rolls out its pipeline of **solution ideas**, **expert task forces** are set up to lead the respective work.

A small group of scientists constitute the **Advisory Board to the Radar** and support the integration of the scientific content into the Radar.

These working groups can also provide expertise and guidance to the Board and the Executive Team. Although they are critical components of GESDA's governance, neither the fora, the advisory board nor the task forces are decision-making bodies from a statutory perspective.

## 2022 from a governance perspective

### Major milestones

24 January	Decision by circular vote
27 January	Meeting of the Board Committee
21-22 April	Meeting of the Board of Directors
26 August	Meeting of the Board of Directors
12 October	Meeting of the Board of Directors

### From pilot to scale-up: strengthening GESDA's governance

From a governance and operations perspective, 2022 was pivotal in formalizing the transition from a pilot phase to a scale-up. While many changes have already been implemented, GESDA's structure and organization will keep evolving as it rolls out its strategy in coming years.

The Foundation has undergone changes needed for the transition, starting with the amendment of its statutes to reflect the extension of the Foundation's mandate; expanding the Board of Directors to 15 members, up from 11; and adapting its organizational structure to the gradual implementation of GESDA's growth.

## GESDA Foundation Board of Directors



**Peter Brabeck-Letmathe**  
Chairman, appointed by the Swiss Federal Council. Vice Chairman of the Board of Trustees of the World Economic Forum (WEF); Chairman Emeritus of Nestlé SA.



**Patrick Aebischer**  
Vice Chairman, appointed by the Swiss Federal Council. Professor of Neuroscience; former President of the Swiss Federal Institute of Technology Lausanne (EPFL), Switzerland.



**Stéphane Decoutère**  
Secretary General of the Board of Directors.



**Samantha Besson**  
Professor at Collège de France in Paris (holder of the Chair in International Law of Institutions) and Professor of Public International Law and European Law at the University of Fribourg, Switzerland.



**Micheline Calmy-Rey**  
Professor at the Global Studies Institute (GSI) at the University of Geneva, Switzerland. Former President of the Swiss Confederation and former Swiss Minister of Foreign Affairs. Designated by the Geneva Authorities



**Sir Jeremy Farrar**  
Director of the Wellcome Trust, London, UK.



**Fabiola Gianotti**  
Director-General of CERN (European Organization for Nuclear Research), Geneva, and Professor of Particle Physics.



**Michael Hengartner**  
President of the ETH Board Zurich/ Bern



**Michael Møller**  
Former Director General of the UN Office in Geneva and former Under-Secretary-General of the United Nations. Chair of the Diplomacy Forum until October 2022



**Mamokgethi Phakeng**  
Vice Chancellor (President) of the University of Cape Town, South Africa and Professor of Mathematics Education.



**Chorh Chuan Tan**  
Singapore's Chief Health Scientist. Former President of the National University of Singapore (NUS) and of the World Economic Forum's Global University Leaders Forum (GULF).

## GESDA Fora and their Chairs

### Academic Forum

### Diplomacy Forum

### Impact Forum

### Citizen Forum

#### Chair



**Michael Hengartner**  
President of the ETH Board  
Zurich/ Bern



**Alexandre Fasel**  
Ambassador, Special  
Representative for Science  
Diplomacy of the Swiss  
Federal Department of  
Foreign Affairs



**Patrick Aebischer**  
Professor of Neuroscience;  
former President of the  
Swiss Federal Institute of  
Technology Lausanne (EPFL),  
Switzerland.



**Mamokgethi Phakeng**  
Vice Chancellor (President) of  
the University of Cape Town,  
South Africa and Professor of  
Mathematics Education.

## Advisory Board to the GESDA Science Breakthrough Radar®



**Sir Peter Gluckman**  
chair of the International Network of  
Government Science Advice (INGSA)  
and president-elect of the International  
Science Council (ISC)



**Michael Hengartner**  
President of the ETH Board Zurich/ Bern



**Michel Mayor**  
Representative of the Fondation pour  
Genève, Professor Emeritus and 2019  
Physics Nobel Prize Laureate University  
of Geneva



**Joël Mesot**  
President of the Swiss Federal Institute  
of Technology in Zurich (ETHZ),  
Switzerland  
Co-Chair of the Academic Forum  
until October 2022



**Marie-Laure Salles**  
Director of the Graduate Institute of  
International and Development Studies



**Martin Vetterli**  
President of the Swiss Federal Institute  
of Technology Lausanne (EPFL),  
Switzerland  
Co-Chair of the Academic Forum  
until October 2022

## Solution Idea Task Forces and their Co-Chairs

### Open Quantum Institute Task Force



**Anousheh Ansari**  
Founder and CEO XPRIZE  
Foundation



**Matthias Troyer**  
Fellow of the American  
Physical Society, Vice  
President of the Aspen  
Center for Physics

### Global Curriculum on Science and Diplomacy Task Force



**Martin Chungong**  
Secretary General Inter-  
Parliamentary Union (IPU)



**Marga Gual Soler**  
Head of Science Diplomacy  
Capacity Building and  
founder of SciDipGLOBAL

### Decarbonization Accelerator Task Force



**Jim Hagemann Snabe**  
Chairman Siemens AG



**Gerald Haug**  
President Leopoldina, Berlin,  
and Professor for Climate  
Geochemistry, ETHZ



**Wendy L. Queen**  
Assistant Professor,  
Director of the Laboratory  
for Functional inorganic  
Materials, EPFL Valais Wallis



**Sergio Mujica**  
ISO Secretary-General



**NeuroTech Compass Task Force**



**Olaf Blanke**

Bertarelli Foundation Chair of Cognitive Neuroprosthetics, EPFL



**Lidia Brito**

Regional Director for Sciences in Latin America and Caribbean, UNESCO

**Co-development, access & use of advanced AI Task Force**



**Daren Tang**

Director General of the World Intellectual Property Organization (WIPO)



**Rudiger L. Urbanke**

Professor of Communication Theory, EPFL

**Science: Norms and Principles Task Force**



**Samira Kiani**

Co-Founder, SafeGen Therapeutics



**Peter Maurer**

Former President of the International Committee of the Red Cross (ICRC)

**GESDA TEAM, as of end of 2022**

By the end of 2022, the team consisted of 12 staff members.



**Sandro Giuliani**

Chief Executive Officer (CEO)



**Jean-Marc Crevoisier**

Communications and Marketing Director



**Olivier Dessibourg**

Executive Director of Science Communication and Outreach



**Gerard Escher**

Senior Advisor



**Florent Gaillard**

Board and Program Manager



**Marga Gual-Soler**

Head of Science Diplomacy Capacity Building



**Marieke Hood**

Executive Director Impact Translator



**Martin Müller**

Executive Director Science Anticipator



**Maricela Muñoz**

Director, Strategic Partnerships



**Daria Robinson**

Executive Director Solution Accelerator and Deputy of CEO



**Agota Seguin**

Head of Operations

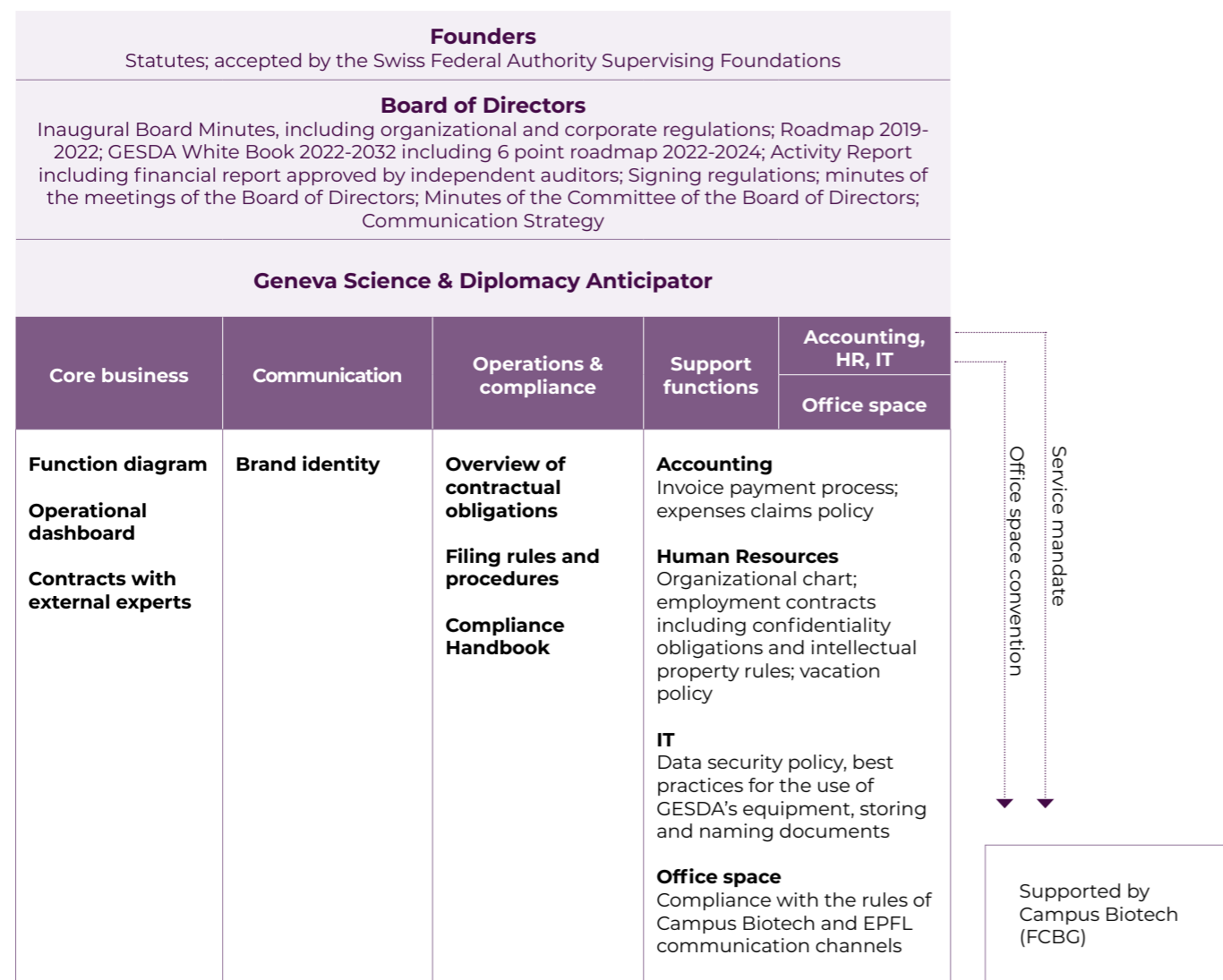


**Laurianne Trimoulla**

Communication Manager

## 6.2. Compliance

Our Foundation is aligned with the highest standards of compliance. We have a solid internal control system in place to ensure accurate monitoring of our operations and progress towards our objectives, and to provide a secure framework for our activities.



## 6.3. Finance

GESDAs Board of Directors approved the budget and financial plan for the start-up period from September 2019 to August 2022 on 8 December 2019. The audited results presented on the next page are structured along:

1. The results of the full 3-year pilot phase from 10. September 2019 – 9. September 2022
2. The results of the full calendar year 2022, including already the first months (September – December) of GESDAs scale up phase

## 2022 Audited results: (1) Jan. to Aug. 2022, (2) Start-up phase 2019-2022, (3) full-year 2022

	Result 2019 - 2020	Result 2021
	Result 19 -20 16 months	Jan - Dec 21 12 months
<b>Income</b>	<b>5,200,000</b>	<b>3,670,380</b>
<b>Public</b>	<b>2,200,000</b>	<b>600,000</b>
Swiss Confederation (confirmed)	2,000,000	400,000
Geneva Canton (confirmed)	100,000	100,000
Geneva City (confirmed)	100,000	100,000
<b>Philanthropy</b>	<b>3,000,000</b>	<b>3,070,380</b>
Financing of operations (confirmed for start up phase)	3,000,000	920,380
General financing		
Financing of products	0	2,000,000
1 - GESDA Science Breakthrough Radar	0	2,000,000
2 - Geneva Science and Diplomacy Anticipation Summit	0	0
3 - GESDA digital interactive Global Sounding Board	0	0
4 - GESDA Science and Diplomacy Solution Accelerator	0	0
Financing of initiatives	0	150,000
1 - Science and Diplomacy Capacity Building Initiative	0	150,000
2 - GESDA-XPRIZE Quantum Contest	0	0
3 - Manifesto on the Human Rights to Science	0	0
Impact Fund for solutions	0	0
<b>Expenses</b>	<b>2,196,844</b>	<b>4,583,410</b>
<b>Operations</b>	<b>2,153,209</b>	<b>2,293,855</b>
Personel Costs	1,915,083	1,977,210
Indemnities Board of Directors <sup>A)</sup>	113,596	111,606
Salaries <sup>B)</sup>	1,578,513	1,589,822
Part patronale	222,974	275,781
Communication	57,187	85,504
Infrastructure and expenses-	180,939	231,142
<b>Products</b>	<b>43,635</b>	<b>2,252,430</b>
GESDA Science Breakthrough Radar®	35,512	1,022,688
Geneva Science and Diplomacy Anticipation Summit		892,693
GESDA digital interactive Global Sounding Board	3,282	116,231
GESDA Science and Diplomacy Solution Accelerator	4,841	220,818
<b>Initiatives</b>	<b>0</b>	<b>37,124</b>
Science and Diplomacy Capacity Building Initiative	0	37,124
GESDA-XPRIZE Quantum Contest	0	0
Manifesto on the Human Rights to Science	0	0
Additional initiatives	0	0
<b>Solutions</b>	<b>0</b>	<b>0</b>
Idea for solution: Open Quantum Initiative (II)	0	0
Idea for solution: The establishment of neuro rights (III)	0	0
Idea for solution: Accelerating Decarbonization (IVa)	0	0
Idea for solution: Geneva Coalition on S&D (VI)	0	0
Additional ideas for solutions	0	0
<b>Operational Result</b>	<b>3,003,156</b>	<b>-913,030</b>
Investments	11,376	2,100
Depreciation	-1,414	-3,331
<b>Annual result</b>	<b>3,013,118</b>	<b>-914,261</b>
Share capital	50,000	50,000
Result carried forward	3,013,118	3,013,118
Annual Result		-914,261
<b>Total equity</b>	<b>3,063,118</b>	<b>2,148,857</b>

(1) Result 2022 Jan - Aug	(2) Start-Up Phase Result	Start-Up Phase Budget	Var. Start-Up Phase	(3) Result 2022 Full-year	Budget 2022	Var. 2022
Jan - Aug 22 8 months	Total 36 months	Total 36 months	Total 36 months	Jan - Dec 22 12 months	Jan - Dec 22 12 months	Jan 22 - Dec 22 12 months
<b>1,009,099</b>	<b>9,879,479</b>	<b>11,600,000</b>	<b>1,720,521</b>	<b>6,209,099</b>	<b>4,050,000</b>	<b>2,159,099</b>
<b>600,000</b>	<b>3,400,000</b>	<b>3,600,000</b>	<b>200,000</b>	<b>4,800,000</b>	<b>800,000</b>	<b>4,000,000</b>
600,000	3,000,000	3,000,000	0	4,600,000	600,000	4,000,000
0	200,000	300,000	100,000	100,000	100,000	0
0	200,000	300,000	100,000	100,000	100,000	0
<b>409,099</b>	<b>6,479,479</b>	<b>8,000,000</b>	<b>1,520,521</b>	<b>1,409,099</b>	<b>3,250,000</b>	<b>-1,840,901</b>
8,620	3,929,000	3,000,000	-929,000	1,008,620	1,000,000	8,620
0	0	0	0	1,000,000		1,000,000
0	2,000,000	4,000,000	2,000,000	0	1,000,000	-1,000,000
0	2,000,000	3,000,000	1,000,000	0	0	0
0	0	0	0	0	1,000,000	-1,000,000
0	0	0	0	0	0	0
0	0	1,000,000	1,000,000	0	0	0
400,479	550,479	1,000,000	449,521	400,479	750,000	-349,521
250,000	400,000	1,000,000	600,000	250,000	250,000	0
150,479	150,479	0	-150,479	150,479	500,000	-349,521
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	500,000	-500,000
<b>3,103,761</b>	<b>9,883,809</b>	<b>11,600,000</b>	<b>1,716,191</b>	<b>5,932,216</b>	<b>5,563,667</b>	<b>368,549</b>
<b>1,417,228</b>	<b>5,864,292</b>	<b>6,350,000</b>	<b>485,708</b>	<b>2,947,668</b>	<b>1,998,667</b>	<b>949,001</b>
1,232,495	5,124,788	5,473,000	348,212	2,468,218	1,675,667	792,551
111,572	336,774	300,000	-36,774	111,572	100,000	11,572
929,467	4,097,802	4,188,935	91,133	2,012,592	1,313,667	698,925
191,457	690,211	984,065	293,854	344,054	262,000	82,054
152,853	295,545	400,000	104,455	209,303	150,000	59,303
31,879	493,960	477,000	33,040	270,147	173,000	97,147
<b>1,278,366</b>	<b>3,574,430</b>	<b>4,200,000</b>	<b>625,570</b>	<b>2,397,057</b>	<b>2,300,000</b>	<b>97,057</b>
583,378	1,641,578	1,700,000	58,422	809,730	950,000	-140,270
306,628	1,199,321	1,300,000	100,679	1,165,238	950,000	215,238
139,010	258,523	200,000	-58,523	139,115	150,000	-10,885
249,349	475,008	1,000,000	524,992	282,974	250,000	32,974
<b>407,962</b>	<b>445,086</b>	<b>1,050,000</b>	<b>604,914</b>	<b>587,492</b>	<b>865,000</b>	<b>-277,508</b>
157,962	195,086	1,050,000	854,914	322,977	265,000	57,977
250,000	250,000	0	-250,000	250,000	500,000	-250,000
0	0	0	0	14,515	100,000	-85,485
0	0	0	0	0	0	0
<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>400,000</b>	<b>-400,000</b>
0	0	0	0	0	150,000	-150,000
0	0	0	0	0	150,000	-150,000
0	0	0	0	0	100,000	-100,000
0	0	0	0	0	0	0
0	0	0	0	0	0	0
<b>-2,094,456</b>	<b>-4,330</b>	<b>0</b>	<b>4,330</b>	<b>276,883</b>	<b>-1,513,667</b>	<b>1,790,550</b>
	13,476		-13,476	13,604		13,604
	-4,745		4,745	-4,494		-4,494
<b>-2,094,456</b>	<b>4,401</b>	<b>0</b>	<b>-4,401</b>	<b>285,992</b>	<b>-1,513,667</b>	<b>1,799,659</b>
50,000	50,000			50,000		
2,098,857	2,098,857			2,098,857		
-2,094,456	-2,094,456			285,992		
<b>54,401</b>	<b>54,401</b>			<b>2,434,850</b>		

## 2022 Balance Sheet

Assets		31.12.2022	31.12.2021
<b>Current assets</b>	Cash and bank	2,615,155.80	1,370,233.78
	Prepaid expenses	30,352.49	44,289.15
	Accrued income	3,000,000.00	920,380.00
	<b>Total current assets</b>	<b>5,645,508.29</b>	<b>2,334,902.93</b>
<b>Fixed assets</b>	Tangible assets	17,840.64	8,730.89
	<b>Total fixed assets</b>	<b>17,840.64</b>	<b>8,730.89</b>
<b>TOTAL ASSETS</b>		<b>5,663,348.93</b>	<b>2,343,633.82</b>

Liabilities and equity		31.12.2022	31.12.2021
<b>Liabilities</b>	Short-term liabilities	150,471.91	100,487.21
	Other short-term liabilities	78,027.90	94,289.37
	Loan	3,000,000.00	0.00
	<b>Total liabilities</b>	<b>3,228,499.81</b>	<b>194,776.58</b>
<b>Equity</b>	Capital	50,000.00	50,000.00
	Income carried forward	2,098,857.24	3,013,118.10
	Net income	285,991.88	-914,260.86
	<b>Total equity</b>	<b>2,434,849.12</b>	<b>2,148,857.24</b>
<b>TOTAL LIABILITY AND EQUITY</b>		<b>5,663,348.93</b>	<b>2,343,633.82</b>

## 2022 Profit and loss statement

		2022	2021
<b>Income</b>	Contributions of public entities	4,800,000.00	600,000.00
	Philanthropic donations	1,409,098.55	3,070,380.00
	<b>Total revenue</b>	<b>6,209,098.55</b>	<b>3,670,380.00</b>
<b>Expenses</b>	GESDA Science Breakthrough Radar®	809,729.77	1,022,688.48
	Geneva Science and Diplomacy Anticipation Summit	1,165,237.51	892,692.83
	Science and Diplomacy Solution Accelerator	282,974.09	220,818.15
	Digital interactive Global Sounding Board	139,115.22	116,230.59
	GESDA-XPRIZE Quantum Contest	250,000.00	0.00
	Science Diplomacy Capacity Building Initiative	322,977.10	37,124.45
	Manifesto on the Human Rights to Science	14,514.99	0.00
	Frais de personnel	2,483,149.07	1,977,209.50
	Communication	209,302.72	85,504.23
	Autres charges d'infrastructure	249,852.93	228,412.50
	<b>Total overheads</b>	<b>5,926,853.40</b>	<b>4,580,680.73</b>
<b>EARNINGS BEFORE INTEREST AND DEPRECIATION</b>		<b>282,245.15</b>	<b>-910,300.73</b>
Depreciation		4,494.25	3,331.15
<b>EARNINGS BEFORE INTEREST</b>		<b>277,750.90</b>	<b>-913,631.88</b>
Financial expenses		-3,917.42	-628.98
Financial expenses		0.00	0.00
Interest on Loan		-31,875.00	0.00
<b>NET FINANCIAL INCOME</b>		<b>-35,792.42</b>	<b>-628.98</b>
Other operating income and expenses		44,033.40	0.00
<b>NET INCOME</b>		<b>285,991.88</b>	<b>-914,260.86</b>

## 2022 Cash-flow statement

	2022	2021
Net income	285'991.88	-914'260.86
Depreciation	4'494.25	3'331.15
<b>WORKING CAPITAL</b>	<b>290'486.13</b>	<b>-910'929.71</b>
Increase (+)/ decrease (-) in current assets	-2'065'683.34	-940,351.50
Increase (+)/ decrease (-) in liabilities	33'723.23	-103,102.60
Net increase/ decrease	-2'031'960.11	-1,043,454.10
<b>CASH FLOW FROM OPERATING ACTIVITIES</b>	<b>-1'741'473.98</b>	<b>-1,954,383.81</b>
Investments	-13'604.00	-2,100.15
<b>CASH FLOW FROM INVESTING ACTIVITIES</b>	<b>-13'604.00</b>	<b>-2,100.15</b>
Loan adjustment	3'000'000.00	0.00
<b>CASH FLOW FROM FINANCING ACTIVITIES</b>	<b>3'000'000.00</b>	<b>0.00</b>
<b>NET INCREASE IN CASH ANDEQUIVALENTS</b>	<b>1'244'922.02</b>	<b>-1,956,483.96</b>
Cash and cash equivalents at the beginning of period	1'370'233.78	3,326,717.74
Cash and cash equivalents at the end of period	2'615'155.80	1,370,233.78

## Auditor's report



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To the Board of Trustees of  
**Geneva Science and Diplomacy Anticipator (GESDA)**

Geneva, 21 April 2023

### Report of the statutory auditor on the limited statutory examination

As statutory auditor, we have examined the financial statements (balance sheet, income statement, statement of cash flows and notes) of Geneva Science and Diplomacy Anticipator (GESDA) for the financial year ended 31 December 2022.

These financial statements are the responsibility of the Board of Trustees. Our responsibility is to perform a limited statutory examination on these financial statements. We confirm that we meet the licensing and independence requirements as stipulated by Swiss law.


We conducted our examination in accordance with the Swiss Standard on the limited statutory examination. This standard requires that we plan and perform a limited statutory examination to identify material misstatements in the financial statements. A limited statutory examination consists primarily of inquiries of company personnel and analytical procedures as well as detailed tests of company documents as considered necessary in the circumstances. However, the testing of operational processes and the internal control system, as well as inquiries and further testing procedures to detect fraud or other legal violations, are not within the scope of this examination.

Based on our limited statutory examination, nothing has come to our attention that causes us to believe that the financial statements do not comply with Swiss law and the deed of foundation.

Ernst & Young Ltd

 Alfred Widmann  
(Qualified  
Signature)

Licensed audit expert  
(Auditor in charge)

 Elodie Vuillaume  
(Qualified  
Signature)

Licensed audit expert

### Enclosure

► Financial statements (balance sheet, income statement, statement of cash flows and notes)



**Geneva Science and Diplomacy Anticipator  
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