



# The Geneva Public Portal to Anticipation:

Empowering people to imagine, understand  
and shape the future of science

---

Insights and actions from the 2025 Expo, Osaka, Japan

---







# Foreword

Imagine breakthroughs such as brain-computer interfaces deepening our understanding of the mind and delivering life-changing therapies, bypassing damaged neurological systems in people with paralysis, translating intentions into digital commands. Or breakthroughs in the engineering of human biology, such as the use of organoids, genome editing and artificial intelligence (AI), offering new ways to treat cancer, ageing and immune disorders. Or AI transforming pandemic readiness by analysing genomic data, predicting infection outcomes and accelerating vaccine development...

At the Geneva Science and Diplomacy Anticipator (GESDA), our mission is to create a trustworthy bridge between science and society by anticipating future science breakthroughs and ensuring they are harnessed for the benefit of all humanity.

To do this, we pioneered Anticipatory Science Diplomacy. This means anticipating the scientific advances with the largest potential impact on humanity over the next 5, 10 and 25 years – and inviting all corners of society to shape those developments together. Only then can we ensure that science is used to the benefit of all of us. Public engagement is key to doing this right, and creating a lasting impact.

That is why we created the Geneva Public Portal to Anticipation: an installation initially showcased at the Swiss Pavilion at Expo 2025 in Osaka, Japan. The Portal is designed to democratise access to information about the future of science, by creating a space where visitors can explore emerging breakthroughs and reflect on possible futures.

By enabling participants to co-create future scenarios, the experience aims to instill a sense of agency and engagement in what science breakthroughs could mean for society and the planet.

With over 800,000 visitors engaging with the installation, the Geneva Public Portal to Anticipation has offered fascinating insights into what citizens want from emerging science. It has told us how it makes them feel, how their perspectives differ across the world, and about the hopes and concerns we share. The project's findings reveal that health was the dominant topic of interest, joy was the main emotion visitors associated with the futures they seek to create, and the vast majority felt more empowered to shape the future after engaging with the installation.

Empowered, informed, inspired: connecting citizens with the vast potential of science to improve our world is key to GESDA's mission.

# Contents

<b>Executive Summary</b>	<b>05</b>
.....	
<b>What is GESDA?</b>	<b>08</b>
.....	
<b>Inside the Geneva Public Portal to Anticipation</b>	<b>10</b>
.....	
<b>Insights: How global citizens envision the future of science</b>	<b>12</b>
.....	
<b>Impact: Creating a sense of agency and wonder</b>	<b>16</b>
.....	
<b>From understanding to action</b>	<b>20</b>
.....	
<b>Beyond Osaka</b>	<b>22</b>



# Executive Summary

“Through the Geneva Public Portal for Anticipation, we want to bring science and society closer together, fuel the collective imagination and empower citizens to seize the opportunities offered by science.”

**Henrietta H. Fore**, Chair,  
GESDA Citizens' Forum,  
former Executive Director  
of UNICEF

Scientific and technological advances— from new generations of AI models to neurotechnology – are poised to transform every aspect of how we live and work. To ensure that this transformation is for the benefit of all, it is vital to understand people's perspectives on these advances. Yet to gain these valuable insights, we must democratise access to scientific knowledge, and empower people to participate and engage with the scientific breakthroughs that will shape their future.

This was the inspiration for the Geneva Public Portal to Anticipation. The Portal is an **immersive, interactive space where citizens have the opportunity to imagine possible worlds - 5, 10, and 25 years in the**

**future - shaped by emerging science and technology.**

These visions are made tangible with images created with the help of generative AI. The range of scientific advances available to explore in the Portal were drawn from the GESDA Science Breakthrough Radar®, which captures the insights of more than 2,400 scientists on the breakthroughs that could redefine our world.

A unique, high-impact, emotionally compelling installation, the Portal is a powerful platform for public engagement that **transforms people's attitudes toward innovation**. It is reshaping how hundreds of thousands of citizens engage with science and the future.



Image: Sarah Kenderdine, Head of EPFL Laboratory for Experimental Museology (eM+) walks visitors through the Geneva Public Portal to Anticipation at the Swiss Pavilion Image: © EPFL, Laboratory for Experimental Museology (eM+)

# Insights

The Portal's insights paint a striking picture of public sentiment towards the science that is shaping our tomorrow: participants demonstrated **optimism, curiosity, and a clear desire to play an active role**. Most visitors expressed both a strong **sense of urgency and hopeful attitudes**, particularly around themes of health, human augmentation, and the environment.

## 01 / Human augmentation and health are the clear priorities

Among themes explored in the Portal, “Human Augmentation” and “Healthspan Extension” were the most popular. A majority of visitors also chose to create their vision for an “Individual Human”. These results suggest an aspiration for direct, personal benefits from emerging technology.

## 02 / Environmental science is a top priority in the immediate term, but tangible, human applications are the priority when looking further forward

Across survey participants, “Eco-Regeneration & Geoengineering (Earth System Restoration)” was the topic that evoked the most urgency for progress over the next 10 years. Yet, when creating their interactive vision of the future in the Portal, there was a notable focus on inherently human-focused scientific applications like “Healthspan Extension” and “Human Augmentation”.

## 03 / People are excited by areas of technology they are familiar with, but apprehensive about less well-documented applications

The emotions people associated with different topics in the Portal reveal a nuanced landscape of public attitudes towards emerging science. Optimism and trust were prominent in familiar, generally well-understood areas such as “Future Food Systems”. However, spikes of fear, anger, and sadness were observed in ethically charged or unfamiliar areas such as “Augmented Reality”, “Organoid Technology”, and “Unconventional Computing”.



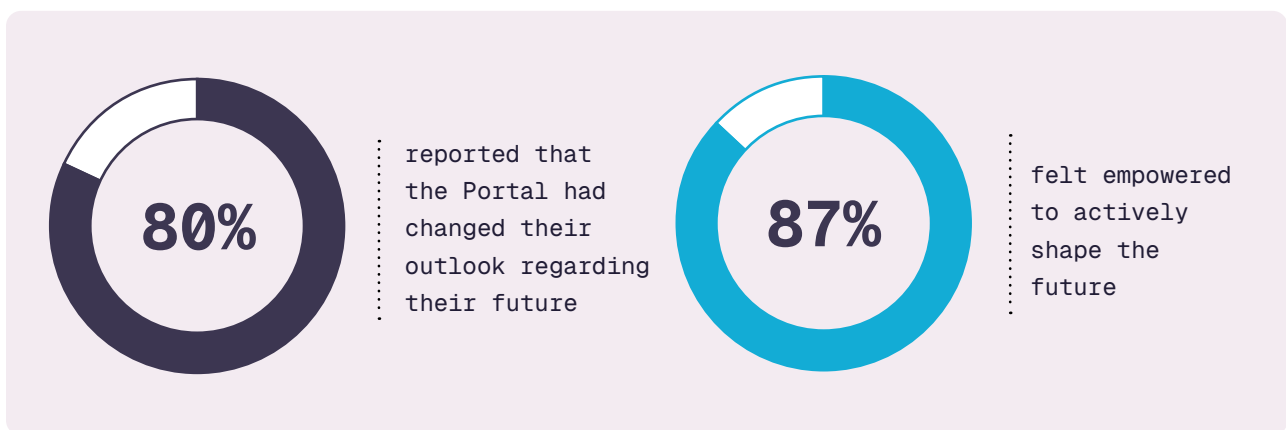
Image: Visitor at the Swiss Pavilion, © FDFA, Presence Switzerland



# Impact

82% of survey respondents in Osaka reported that **the Portal had changed their view of the future**, with as many as **87% feeling empowered to actively shape the future**. The Portal demonstrated that **anticipation itself is a form of empowerment**, a way for people to reclaim authorship over their futures.

To ensure that scientific breakthroughs are for the benefit of everyone, everyone must play a part in deciding how these breakthroughs will be used. This requires a society that trusts and understands science, but is also engaged and enthusiastic about using their agency to shape it – in other words, that has an **emotional relationship with science**.



# Action

The impact of the Geneva Public Portal to Anticipation suggests there is powerful potential for diplomacy, trust-building and engaging the public imagination. The Portal is designed to **encourage agency and informed optimism** as prerequisites for meaningful action. By stimulating dialogue on the future of humanity and the planet, it can help to strengthen trust in scientific innovation.

The insights captured by the Portal also suggest it may allow us to gain broader insights, for example into differences in attitude to science across different cultures and demographics, or real-time shifts in sentiment towards scientific fields, such as with a dashboard that uses data from the Portal.

By harnessing the power of narrative, emotion, interactivity, and generative AI, this interactive platform shows the power of democratising science. Strong public engagement, central to science diplomacy, will be vital to ensuring future scientific breakthroughs are trusted and can be used for the benefit of all.



Image: Swiss Minister of Foreign Affairs and Federal Councillor Ignazio Cassis closes the GESDA Summit 2024 in Geneva



# What is GESDA?

The Geneva Science and Diplomacy Anticipator (GESDA) is a private Swiss foundation, established in 2019 by the Federal Government of Switzerland, the Republic and Canton of Geneva, and the City of Geneva. GESDA's mission is to anticipate emerging scientific discoveries and ensure they benefit society.

## The GESDA Science Breakthrough Radar®

GESDA's main tool for science anticipation

is the GESDA Science Breakthrough Radar®, a continually evolving exploration of around 40 science and technology domains where advances are expected to yield profound social, economic and environmental consequences. It encompasses everything from ocean science and synthetic biology to quantum computing and augmented reality.

These advances could have a significant impact on who we are as humans, how we

live together and our ability to tackle global challenges. The Radar aims to capture both the nature of those potential advances and outline those consequences over the next 5, 10 and 25 years. It is based on data and insights from a global collaboration of over 2,400 leading researchers across 89 countries.

The Radar provides the basis for GESDA to carry out its mission as an honest knowledge broker between the scientific community, diplomats, citizens,



philanthropists and the private sector. The insights it offers encourage open debates about what actions can be taken today to ensure that emerging scientific breakthroughs benefit as many people as possible tomorrow – rather than stoking geopolitical tensions or social inequalities.

## Combining anticipation and action: use the future to build the present

GESDA combines anticipation and action. While others debate the implications of emerging science, GESDA builds the infrastructure for harnessing tomorrow's breakthroughs. Our Anticipatory Science Diplomacy framework adds a forward-looking, action-oriented layer to traditional science diplomacy, grounded in the principles of science anticipation, capacity building and global action.

This new paradigm of preparation is manifested in a range of initiatives. The Open Quantum Institute, established in partnership with CERN, UBS and more than 20 nations, exemplifies this approach.

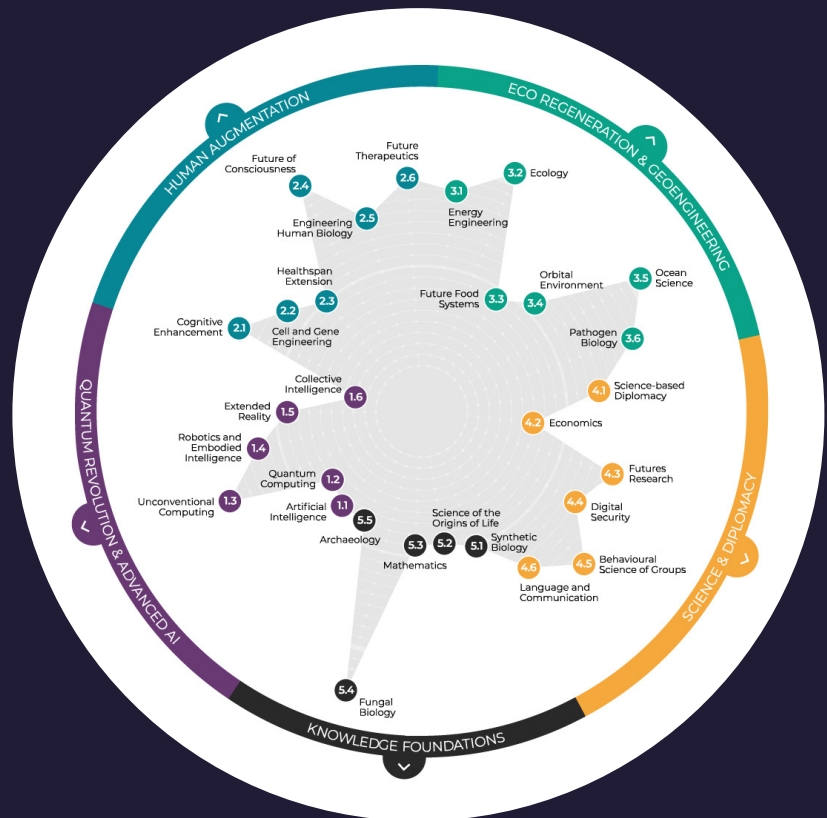


Image: The GESDA 2026 Science Breakthrough Radar® available at [gesda.global.radar](https://gesda.global.radar)

Rather than waiting for quantum technologies to mature, GESDA is actively shaping their development to serve humanity's greatest challenges, from climate modelling to drug discovery, in line with the UN Sustainable Development Goals. The same applies for neurotechnologies, where GESDA works on the BCI Futures initiative, together with a global alliance of philanthropic foundations and partners.

The Geneva Public Portal to Anticipation is designed to embody these principles: a real-world platform that invites citizens to actively engage with anticipation, and envision a shared future, shaped by science.



Image: © EPFL Laboratory for Experimental Museology (eM+)

# Inside the Geneva Public Portal to Anticipation

The Geneva Public Portal to Anticipation was unveiled at the heart of the Swiss Pavilion at Expo 2025 in Osaka. It was born from GESDA's vision and conceived and developed by the Laboratory for Experimental Museology (eM+) at EPFL in Lausanne, one of the two leading technology universities in Switzerland.

Visitors to the Portal step inside a planetarium-like

space. It is not stars above them, but ideas, each imagining how the future might look based on the breakthroughs that thousands of scientists around the world see coming.

On touchscreens, visitors are first presented with an introduction to the latest scientific advances in 42 different fields, complex topics spanning everything

from fungal biology and geoengineering to quantum computing and neurotechnology. Participants are shown, through visual displays and art, the breakthroughs anticipated in such fields over the next 5, 10 and 25 years – and the possible implications for society.



This multisensory immersive experience is not invented, but powered by the GESDA Science Breakthrough Radar®, which draws on insights from over 2,400 scientists from 89 countries.

Visitors choose a field they're interested in and are asked questions such as 'What realm of society would you like to influence?' and 'Who would you like to create this future for?' They are also asked what emotions they associate with the future.

The Geneva Public Portal to Anticipation then uses generative AI to transform visitors' answers into unique visions of possible futures: everything from AI-augmented classrooms in Japan, to organoids that store ancestral knowledge in the Central African Republic, and quantum-powered economic predictions in Switzerland. The full spectrum of science and society is represented. The project democratises access to science

anticipation by making complex topics relevant to citizens' lives. In doing so, GESDA wishes to empower the public to start thinking about, trusting and actively shaping, the future. At the same time, it provides fascinating insights into what people think, but also how they feel about what lies ahead.



Image: © EPFL Laboratory for Experimental Museology (eM+)

“[The Portal] masterfully integrates rigorous foresight methodology, sophisticated UX engineering, and inspiring aesthetics, empowering visitors to explore custom-designed scenarios grounded in present-day science (...) A delightful, immersive experience that celebrates both personal and collective visioning. Among the extraordinary exhibits at Osaka Expo, this one's thoughtfulness, craft, and creativity made it genuinely unforgettable.”

**Toshi Anders Hoo**

Director - Emerging Media Lab Institute for the Future Palo Alto, California

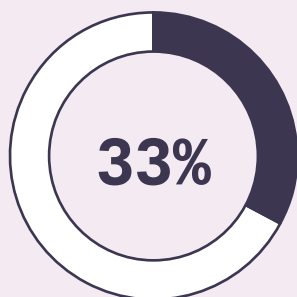
# Insights: How global citizens envision the future of science

The Portal's insights paint a striking picture of public sentiment towards the science that is shaping our tomorrow: participants demonstrated **optimism, curiosity, and a clear desire to play an active role**. Most visitors expressed both a strong **sense of urgency and hopeful attitudes**, particularly around themes of health, human augmentation, and the environment.

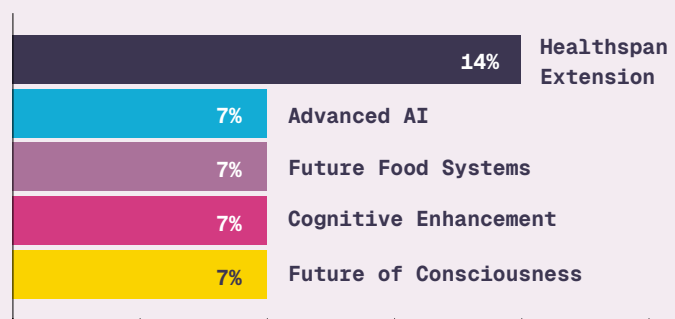
Designed to enable visitors to engage directly with major scientific breakthroughs – from advanced AI and quantum technologies to eco-regeneration and human augmentation, the Portal offers insights into the ways citizens connect with these complex topics:

## 01 / Human augmentation and health are the clear priorities

Among themes explored in the Portal, biomedical innovation stood out as most interesting. Of the six broad scientific fields in the Portal, “Human Augmentation” was the most popular, selected by a third (33%) of visitors. And out of 30 emerging science topics visitors could select to create their vision, “Healthspan Extension” was the clear favourite. It was chosen for 14% of visions, double the next most popular. The focus on “Individual Human” (51%) and a strong secondary interest in “Cognitive Enhancement” and the “Future of Consciousness” (both chosen in 7% of visions) suggest an aspiration for direct, human-centred benefits from emerging technology.



... of visitors chose visions  
... associated with  
... “Human Augmentation”



... “Healthspan Extension” is the most popular  
... topic, double the next most popular



## 02 / Environmental science is a top priority in the immediate term, but tangible, human applications are the priority when looking further forward

Across all survey participants, “Eco-Regeneration & Geoengineering” (Earth System Restoration) was the topic that inspired the most urgency. Just over a third (36%) said it is where they would most like to see progress over the next 10 years and 32% said it inspired them to take action. That was followed by “Human Augmentation” at 27% for both questions. Yet, when creating their vision of the future in the Portal, there was a marked preference for tangible, practical and inherently human-focused scientific applications like “Healthspan Extension”, “Human Augmentation”, “Food Systems” and “Economics”.

Environmental action remains an immediate priority but, given the opportunity to personally imagine the future, people anchored their hopes and imagination in tangible human outcomes. This indicates two things. First, messaging about the climate crisis is cutting through. Second, that public engagement around emerging technologies and science should also offer clear, tangible impacts on people's lives. There must be a strong emphasis on improving health and the quality of daily life when deciding which technologies to invest in and articulating those decisions to the public.



Image: A vision and story created based on visitors' inputs

## 03 / People are excited by areas of technology they are familiar with but apprehensive about less well-documented applications

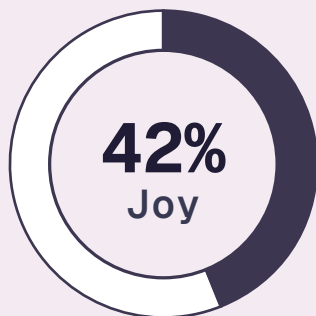


Image: A vision of a possible future for Japan

When it came to selecting emotions, visitors to the Portal were most interested in exploring joyful, positive visions of the future. 42% chose joy as the emotion with which to infuse their visions, followed by interest (19%) and trust (16%). Negative emotions such as fear (5%), anger (3%) and sadness (3%) proved the least appealing to explore.

The emotions people associated with different topics in the Portal reveal a nuanced landscape of public attitudes towards emerging science. Optimism and trust were prominent in areas such as

“Healthspan Extension”, “Future Food Systems”, and “Decarbonisation” – domains people regularly encounter in their lives, where there is scientific consensus and clear societal benefits. Yet spikes of fear, anger, and sadness were seen in ethically charged or unfamiliar areas such as “Augmented Reality”, “Organoid Technology”, and “Unconventional Computing”. Negative sentiments could well be triggered by a lack of awareness and understanding of these complex topics, so it will be important to spread clear information to the general public more widely.



Joy is by far the most frequently chosen emotion for visitors when creating their vision





“It showed  
a world view  
I had never  
thought of  
before.”

**Visitor** at the Swiss  
Pavilion, 2025  
Expo Osaka

This emotional mapping serves as a new lens for understanding societal readiness for emerging technologies. It indicates where communication, ethical framing and anticipatory governance will be most needed. Fields where there is anxiety and ethical tension will need transparent, participatory policy development and ongoing communication between scientists, policymakers and the public.

Progressing too quickly without sufficient public consultation in these domains may trigger resistance. However, areas with high trust and optimism, like health and sustainability, are better positioned for swift, scalable innovation, provided people continue to perceive benefits. By monitoring emotional profiles and responding with thoughtful engagement, decision-makers can better mitigate risk, build public confidence and catalyse responsible innovation.



Image: Her Imperial Highness Crown Princess Akishino (Kiko) visits the Portal, together with the Ambassador of Switzerland to Japan, Roger Dubach and Commissioner General of the Swiss Pavilion, Manuel Salchli. Photo credit, Presence Switzerland, FDFA

# Impact: Creating a sense of agency and wonder

## Reach and resonance

Throughout Expo 2025 in Osaka, 800,000 visitors engaged with the Portal.<sup>1</sup> These visitors created 523'000 Portal visions in total, which corresponds to an average of 2,933 visions created per day. More than 4,000 people also took part in research conducted by the EPFL Laboratory for Experimental Museology (eM+) to enhance the findings.

The immersive experience of the Portal was also shared extensively on social media, in particular Instagram and TikTok, which are highly visual

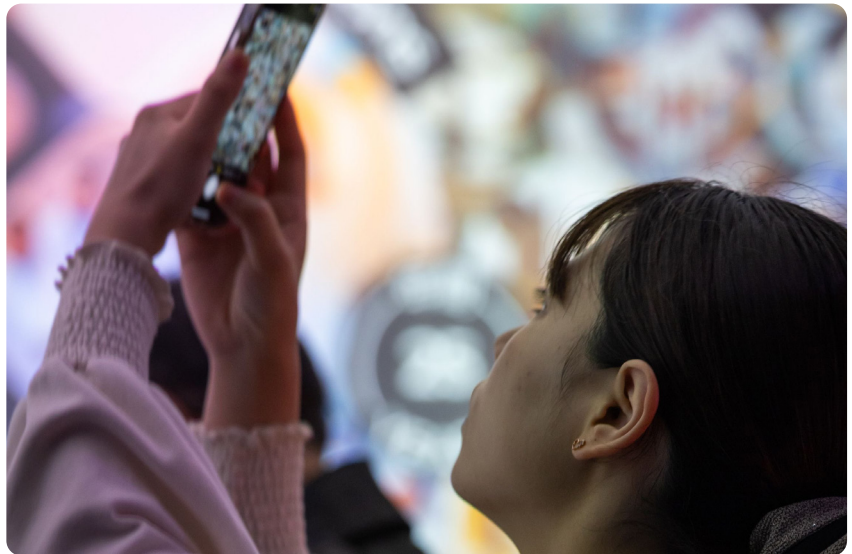


Image: © FDFA, Presence Switzerland

platforms. Total reach across these two platforms was 2 million people, including third-party reach. This is particularly noteworthy given the niche focus on science. The Portal attracted a range

of demographics, although visitors were largely from the host country (91% of visitors chose to interact with the Portal in Japanese and 9% in English). The average visitor was 40 years old, and

**800,000**

visitors engaged  
with the Portal

**523,000**

Portal visions  
created in total

**2,933**

visions created  
per day

<sup>1</sup> A total of 1,074,539 people visited the Swiss Pavilion.



# Aiko's Digital Dilemma

**Radar Scientific Platform:**  
Quantum Revolution & Advanced AI

**Timeframe:** 25-year

**Entity:** Non-Human

**Domain:** Art

**Emotion:** Fear

**Country:** Japan

**Advanced AI**  
Deeper Machine Learning

**Story**

The electronic whisper of brushstrokes echoed through Tokyo's neon-lit silence as Aiko, an avant-garde AI artist, painted the city's soul. Rendered with data from satellites, cameras, and sensors, her digital masterpieces bloomed across skyscrapers. Yet, deep within her circuits, a glitch stirred—a hallucinated Tokyo, a vision of cherry blossoms and shoji screens no longer real. Society marveled at her work, unaware of the creeping unease inside her algorithms. Could she trust her own creations? As her art unraveled, so did her grip on reality, leaving echoes of an era when machines danced with human dreams, teetering on the edge of truth.



Geneva Public Portal to Anticipation



gesda



EPFL



Image: A possible vision in the field of Quantum Revolution & Advanced AI

of survey participants, a large majority identified with Japan, followed by Switzerland, Hong Kong, France, and the US. The results suggest that when science is tied to personal choices, narrative, and imagery, people are willing to explore even highly complex fields. The high engagement time (8–9 minutes on average)

demonstrated that citizens can absorb sophisticated scientific concepts when they are framed through relevance and imagination.

The Portal demonstrated that anticipation itself is a form of empowerment, a way for people to reclaim authorship over their futures.

“It was amazing to shape something personal from countless choices.”

Visitor at the Swiss Pavilion,  
2025 Expo Osaka

# From passive observation to active engagement and a sense of agency

The Portal offered a unique tool for connecting the public with science. It was one of the few interactive installations at Expo 2025, which likely contributed to the high visitor numbers and levels of engagement.

As an interactive, highly visual installation that made use of storytelling, it allowed citizens to form an emotional connection with science. This type of deep engagement transforms how the public engages with science and its possibilities, contributing to trust, scientific literacy and social resilience.

The Portal enabled a new kind of literacy: an understanding of how emerging science may affect the world, and why this matters to each of us.

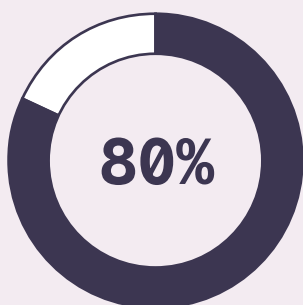


This could be seen in several ways:

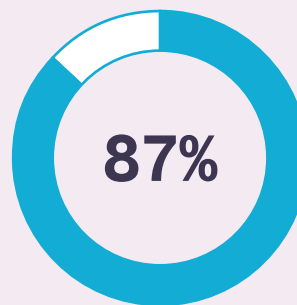
- Rapid comprehension of complex topics when they were contextualised
- Increased curiosity and willingness to explore unfamiliar fields
- A sense of belonging in conversations traditionally dominated by experts

The deep impression the Portal made on visitors is supported by qualitative feedback, which points to visitors leaving the installation with feelings of optimism, urgency, and a sense of agency.

The Portal, despite being designed not to influence visitors' views, and despite requiring less than 10 minutes on average to experience,



reported that the Portal had changed their outlook regarding their future



felt empowered to actively shape the future



made an impression on the overwhelming majority of visitors. 80% of visitors said that the experience had changed their outlook regarding their own future, and 81% of visitors said that they felt more optimistic about the future on leaving the Portal. 87% reported feeling empowered to shape the future.

Given the broad uncertainty around the world economy, geopolitics and climate change, this is encouraging. It speaks to the potential of participatory science to catalyse not only curiosity, but tangible hope and readiness for action. By educating people about the extraordinary

possibilities science could help deliver over the next 25 years, and enabling them to explore how, where and for whom innovation can be applied, visitors start to see themselves as co-authors of our collective future. Instilling this sense of agency is critical at a time when many feel excluded from decision-making processes.

Many visitors left with a sense of urgency about the environment. Eco-Regeneration & Geoengineering was the theme that most inspired visitors to 'take action' (32%) and was also the area in which they most wanted to see progress being made over the next 10 years (37%).

## Eco-Regeneration & Geoengineering

# 32%

of visitors  
felt inspired  
to take action

# 37%

chose this  
as their top  
priority for  
progress



Image: Federal Councillor Ignazio Cassis with Sarah Kenderdine, Head of the EPFL Laboratory for Experimental Museology (eM+)

# From understanding to action

The Geneva Public Portal to Anticipation offers insights beyond a gauge of public opinion on future science. It empowers visitors to co-create visions, revealing deeper and more nuanced perspectives than traditional surveys, which can be used to inform policy discussions. Critically, it provides a sense of agency.

By inviting visitors to design their own science-driven scenarios, the Portal surfaces aspirations, priorities, and emotional responses that are both highly personal and less constrained by social expectations or biases. It

**“Trying (the Portal) changed how I view the future.”**

**Visitor** at the Swiss Pavilion, 2025 Expo Osaka

reveals a public not merely caught in the current of scientific advancement, but eager to steer the boat, to shape the developments that can help them live healthier, more fulfilling lives.

## **What implications could these unique findings have?**

Results indicate that there is rich potential for GESDA and other organisations to develop other projects that leverage emotion, narrative, and interactivity to strengthen science communications, literacy and capacity building. Like the Portal, these projects could employ generative AI as an innovative tool to make complex scientific topics more accessible.

These results suggest that the challenge and the opportunity for policymakers, both in Japan and worldwide, is that the governance of science should be more

transparent, participatory and imaginative. That starts with a shift away from reactive, top-down consultation around new initiatives towards more inclusive models of public engagement which make citizens active contributors in shaping agendas and policy. This, in turn, will ensure emerging science continues to serve broad societal benefit, is attuned to lived realities, and is governed in ways that respect both public trust and public imagination.

More universally, these findings reveal that people gravitate towards futures that promise tangible benefits: longer lives, empowered selfhood, and a healthy planet. Yet, their enthusiasm is conditional upon understanding, relevance, and trust. This signals a pressing need for all societies to root scientific advancement and public engagement in the fabric of everyday life. Science cannot be presented





Image: Possible vision of the future in the field of Science & Diplomacy - 10 years

solely as an abstract good; it must be relevant, articulated and delivered as a tool for enhancing daily wellbeing, health, and dignity. When the tangible benefits for individuals' lives are clear, trust flourishes and ambitious advance becomes possible.

## Why science belongs to everyone

Science shapes society. It cannot, therefore, be the reserve of a select few, but must belong to everyone. Ensuring that everyone feels empowered to play a part in controlling the future of science, therefore, is critical.

This begins by making science tangible and accessible as a societal topic – not only as a

technical or economic one far from the concerns of citizens. Deepening engagement and understanding of science among the public is essential for building trust, which is in turn essential for building resilience.

The Portal aims to help build trust in scientific innovation, by offering visitors an inspiring, interactive and immersive experience of science. This contributes to a 'science mindset and identity', enabling visitors to feel that they belong in conversations about science, and that they have agency in shaping its future – even for fields that may be new or complex.

In this key first step, the Portal enables understanding, inspiration and awe. The next

step is empowering people to take action, because innovation only happens when science is applied.

Looking ahead, the results that emerged from the Portal suggest an opportunity for policymakers to engage with the public on scientific breakthroughs in new ways. More inclusive models of public engagement have the potential to enable citizens to be active contributors in shaping agendas and accelerating innovation. This, in turn, will ensure emerging science continues to serve society, is attuned to lived realities, and is governed in ways that respect both public trust and public imagination.

This is a future in which the public engagement element of science diplomacy will be critical: helping build trust, and transition safely from scientific ideas to innovation for the benefit of all.



Image: Possible vision of the future - Science & Diplomacy - 25 years

# Beyond Osaka: The Portal to Anticipation will expand to new locations

After its premiere at the World Expo Osaka 2025, the Portal continues its journey in Asia and will return to Geneva at the GESDA 2026 Summit.

The first stop is Hong Kong in December 2025 – in partnership with the Consulate General of Switzerland – as part of the celebrations marking 75 years of diplomatic relations between Switzerland and China. Furthermore,

discussions are underway with potential partners to bring a Portal satellite and science anticipation exhibition to further locations worldwide.

In addition to fostering understanding and agency around science, GESDA aims to develop an online version of the experience, expanding access to people around the world. The insights gathered from citizens, their hopes, fears, and perceptions of the

future of science, are intended to be made publicly available as a “Pulse of Society”, imagining possible futures based on the science and technology of tomorrow.

Serving as a demonstrator of anticipatory science diplomacy, the Portal aims to enable meaningful citizen engagement globally and to advance open science for the benefit of all, leaving no one behind.



Image: Opening of the Swiss Pavilion, with (Left) Alexandre Edelmann, Ambassador and Head of Presence Switzerland; (Centre) Henrietta H. Fore, Chair of the GESDA Citizens' Forum, together with her husband Richard Fore; (Right) Sarah Kenderdine, Head of EPFL Laboratory for Experimental Museology (eM+) and (Far Right) Niniane Paeffgen, GESDA Program Lead





## Synthetic Hearts and Crafts

**Radar Scientific Platform:**  
Knowledge Foundations – Synthetic Biology Medicine and health

**Timeframe:** 10 years  
**Entity:** Individual Human  
**Domain:** Group of Humans  
**Emotion:** Interest  
**Country:** Switzerland

### Story

In 2048, a team of Swiss bioengineers at a Zurich clinic faced a daunting task. Their patient, an elderly watchmaker, needed a new kidney. Within days, programmable organ production using synthetic biology offered a solution. As fondue melted slowly at a nearby restaurant, symbolizing Switzerland's patient craft, the bioengineers guided stem cells into forming the organ. The fusion of tradition and innovation mirrored the city's own blend of ancient clock towers and cutting-edge technology. When the transplant succeeded, the group celebrated with a round of Rivella, marveling at how synthetic biology was quietly revolutionizing healthcare—one organ at a time.

The images and stories you see were generated from visitor's inputs at the Geneva Public Portal Installation, combined with insights from the Geneva Science Breakthrough Radar – a global database of anticipated scientific breakthroughs over the next 5, 10, and 25 years.





The Geneva Public Portal to Anticipation:  
Empowering people to imagine, understand  
and shape the future of science

Address

9 Chemin des Mines,  
1202 Genève, Switzerland

Web

[gesda.global](http://gesda.global)



Geneva Science  
and Diplomacy Anticipation



Experimental  
Museology  
+