

INTERNATIONAL YEAR OF SCIENCE ENGAGEMENT IYSE 2027

IMPACT STRATEGY
JUNE 2022

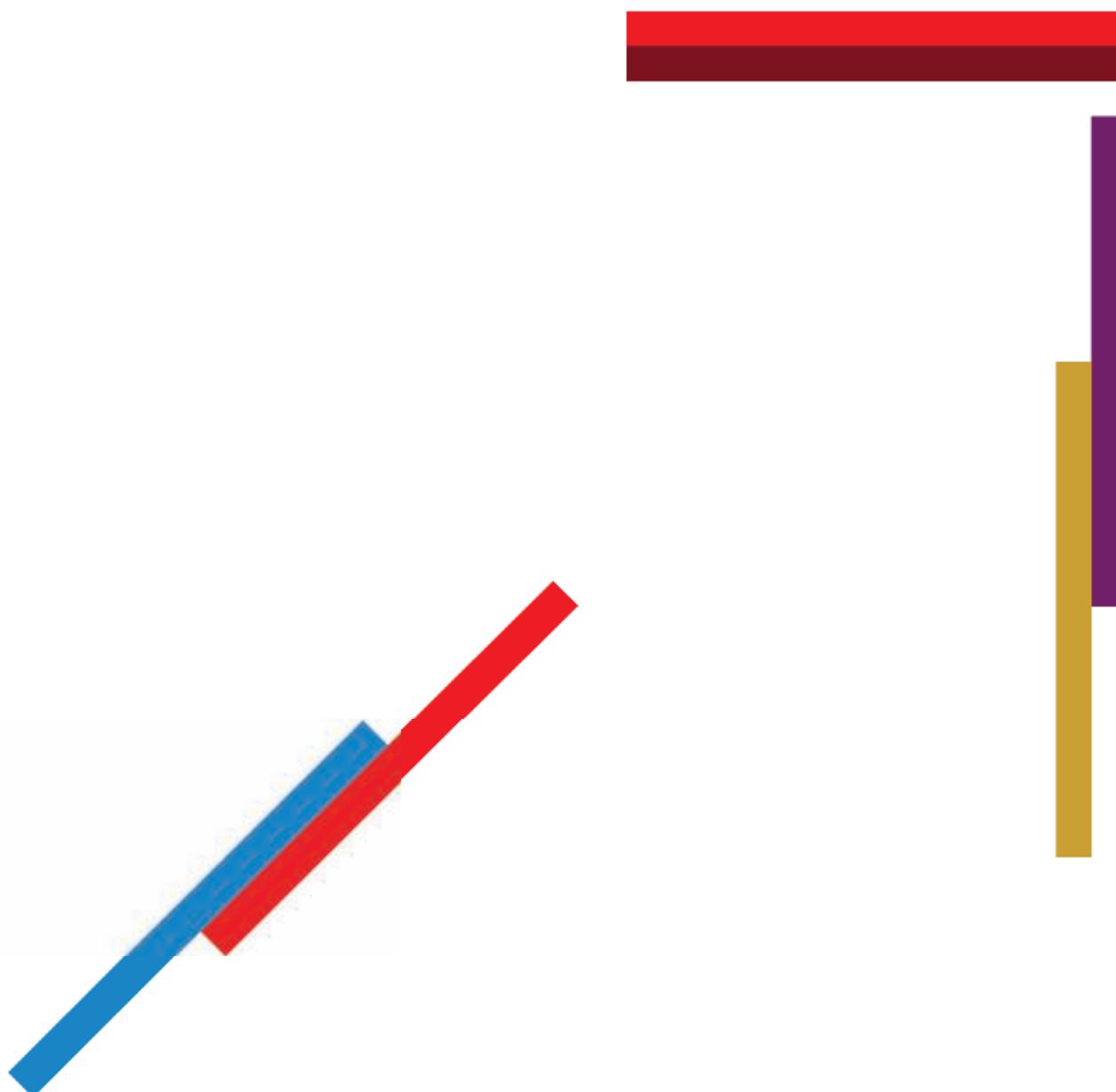


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Please note that this first version of the Impact Strategy of the International Year of Science Engagement 2027 is a living and working document, that will be updated accordingly, after prominent IYSE events for the duration of 2022-2023. Such events include the IYSE Assembly in Paris from May 30 - June 1, 2022 and IYSE's participation at the [Falling Walls Engage Hub](#) launches in Mexico, South Africa and Japan.

1 WHAT IS *SCIENCE ENGAGEMENT?*

We define Science Engagement as activities, events, or interactions bridging the gap between science and the wider society to generate mutual learning and mutual benefits across the spectrum of public engagement in science and participatory science communication.

Our intention is to foster engagement as a two-way process with the goal to shape and co-create Science Engagement and scientific processes together, to promote active involvement of the public and researchers in scientific knowledge production.

We seek diverse and inclusive participatory formats of all levels: from co-productive research and public panels, to arts-driven or entertaining approaches – the common ground is the inclusion of- and impact on all sides involved.

Science Engagement brings science and society closer together, contributing to increased democratisation of knowledge, evidence-based decision-making and participatory processes that contribute to addressing global challenges.

2 MISSION OF THE *IYSE 2027*

The International Year of Science Engagement (IYSE) 2027, to be endorsed by UNESCO in 2023, is an initiative run by the Falling Walls Foundation that aims to highlight the relevance of Science Engagement for and with society, namely by tackling global challenges associated with the United Nations Sustainable Development Goals (SDGs), specifically challenges associated with the following SDGs examples: SDG 3: Good Health and Well-being; SDG 10: Reduced Inequality; SDG 13: Climate Action; SDG 17: Partnerships for the Goals.

As the Secretary-General of the United Nations, António Guterres, stated: “Science is our great ally in the efforts to achieve the Goals.”¹ In order to achieve the SDGs, more open, diverse, and inclusive networks of dialogue and collaboration between Science Engagement practitioners, scientists and other relevant stakeholders² need to be further nurtured and/or created.

Building on the need above, the IYSE aims to promote multistakeholder networks that can connect, exchange perspectives, support each other and collaborate on Science Engagement and scientific projects addressing global challenges. Going beyond one-way discourse, the IYSE particularly wants to foster Science Engagement initiatives that follow two-way, participatory, co-creative and bottom-up Science Engagement approaches, which contribute to joint creation of Science Engagement or scientific projects, as well as knowledge co-production. Through two-way and participatory approaches, we want to potentiate Science Engagement that includes and engages voices from underrepresented or underserved identities, minority groups,

¹ The Future Is Now – Science for Achieving Sustainable Development. UN/DESA. (2019)

² Scientific institutions, civil society organisations, youth, industry, policymakers, media, wider society.

and local communities (e.g., rural and indigenous communities, migrants, displaced persons, women, etc.).

To generate effective global action on science targeting global challenges, the IYSE further wishes to inspire and empower all scientists of the world to enrol in Science Engagement initiatives. To achieve this, the IYSE aims to foster initiatives that focus on the societal value of Science Engagement, as well as rewarding scientists with recognition and prizes for their Science Engagement efforts.

During its implementation in 2027, the IYSE wants to boost long-lasting improvements in people's lives through Science Engagement that promotes the democratisation of knowledge, scientific literacy, as well as evidence-based information and decision-making. Further, IYSE aims for society to see Science Engagement and science as agents of global change, and as fundamental motors to solve the global challenges of our time, thus contributing to the advancement of sustainable development and wellbeing for all.

3 THEORY OF CHANGE



A Theory of Change is an impact strategy and evaluation framework which allows us to formulate the results and long-term societal changes that the IYSE aims to achieve. Below, we present the IYSE's Theory of Change, including:

- **Challenges** - the societal problems IYSE wants to tackle with its activities.
- **Outputs** - the direct results from the activities IYSE develops or promotes.
- **Outcomes** - the changes in skills, knowledge, behaviour, and actions of IYSE's target groups.
- **Impact** - the significant, lasting, and sustained change that occurs on people's lives as a result of IYSE's activities.

IYSE's target groups are, on a primary level, Science

Engagement practitioners/initiatives/institutions, as well as scientists and their institutions. On a secondary level, the IYSE also targets policymakers, civil society organisations, industry leaders, media, youth and wider society.

This Theory of Change is a framework for IYSE's activities in 2027, as well as IYSE's strategy and coordination efforts until 2027.

3.1 IYSE'S CHALLENGES

Challenges can be defined as the societal problems IYSE wants to tackle with its activities.

- Societal open access to clear scientific information associated with global challenges is low.
- Perspectives, knowledge, and experience of the wider society are not successfully integrated in the scientific processes tackling world challenges, on a global level.
- Low number of bottom-up Science Engagement processes, which prevents the participation of citizens and other stakeholders in knowledge production.
- Low inclusion of underrepresented or underserved identities, minority groups, and rural communities in Science Engagement and science itself.
- Gap between science and other societal groups.
- Scientific illiteracy and associated low democratisation of decision-making processes.
- Evidence-based information is not included enough in societal and political decision-making processes.
- Low visibility of Science Engagement and its relevance for society.
- Low global connectivity, synergies and collaboration of/between Science Engagement practitioners, initiatives and the general public.
- Science Engagement is not an integral part of every scientist's career and embedded as a common practice in scientific institutions.
- Science Engagement is not used as much as it could for solving global challenges aligned with the Sustainable Development Goals.

3.2 IYSE'S OUTPUTS

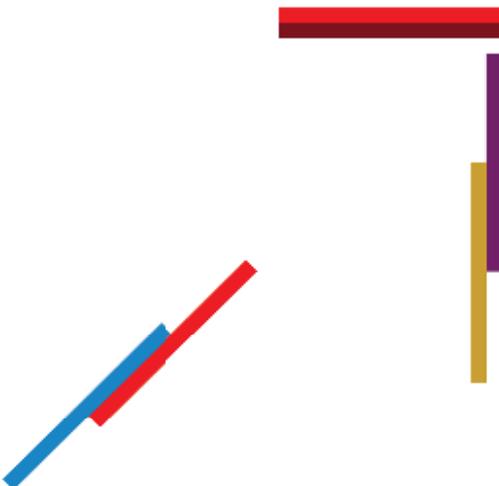
Outputs are the direct results from the activities IYSE develops or promotes.

- Stakeholder (Science Engagement practitioners and professionals, scientists, scientific institutions, civil society organisations, industry, policymakers, media, wider society) networks of open dialogue, collaboration and knowledge are promoted, to foster action and sustainable solutions on global challenges.
- Existing and new global, open, digital and physical Science Engagement spaces are created, promoting connection, networking, community support and collaboration.
- Science Engagement initiatives that include diverse and inclusive multistakeholder perspectives are promoted.
- Two-way, participatory, co-creative and bottom-up Science Engagement approaches are highlighted, contributing to shape and co-create Science Engagement projects/initiatives and the scientific process together.
- Science Engagement initiatives that tackle global challenges aligned with the SDGs:
 - > Local-global debates and multistakeholder actions on global challenges aligned with the SDGs are potentiated.
 - > Science Engagement initiatives aligned with the SDGs are fostered.
- Give more visibility to Science Engagement and scientific discoveries that help tackle global challenges aligned with Sustainable Development Goals.

3.3 IYSE'S OUTCOMES

Outcomes are changes in skills, knowledge, behaviour and actions of IYSE's target groups.

- Science Engagement is seen as an agent of change in society, since it helps understanding and integrating societal perspectives into scientific processes, as well as contributes to publics' understanding, appreciation and trust in science.
- Science Engagement is better integrated in schools curricula, empowering children and youth with co-creation processes, evidence-based knowledge and scientific skills to enrol in the global effort to address global challenges.
- Science Engagement is one of the main focuses of local civil society organisations and local/regional governments.
- Societal democratisation of knowledge is increased, by globally spreading scientific information and contributing for the involvement of different audiences in scientific processes.
- Policy-making that can tackle global challenges is influenced through two-way, participatory, co-creative and bottom-up Science Engagement approaches.
- Scientific institutions recognize and incentivize Science Engagement practices done by their scientists.
- Scientists benefit from their enrollment in Science Engagement, namely through gaining reputation and increased visibility of their work, new research ideas, communication and leadership skills, as well as increased funding possibilities.
- Scientific institutions benefit from their enrollment in Science Engagement, namely through the enhancement of their public image and increased funding possibilities.
- More action on global challenges aligned with the Sustainable Development Goals is achieved.
- Engagement with science is viewed as a necessary process to tackle global challenges.
- Society has more open access to clear scientific information associated with global challenges.



- Wider society and other stakeholder groups' perspectives, knowledge and experience are integrated in bottom-up scientific processes tackling global challenges, contributing to the co-creation of knowledge and ensuring voices from underrepresented communities are heard and implemented accordingly.

3.4 IYSE'S IMPACT

Impact is the significant, lasting, and sustained change that occurs on people's lives as a result of IYSE's activities.

- Science Engagement is integrated in scientific institutions' culture and scientific careers.
- Global inclusion of underrepresented and underserved identities, minority groups, and rural communities in Science Engagement.
- Long-lasting improvements in people's lives through two-way, participatory, co-creative and bottom-up Science Engagement processes between science and society, as well as evidence-based decision-making processes.
- Increased societal trust in science on a global scale.
- Global societal challenges are tackled and SDGs are achieved.

4 IYSE'S ACTIVITIES



The activities are the actions the IYSE will develop and promote to achieve the outputs and outcomes mentioned in the Theory of Change above. These activities will be implemented during the year of 2027. For a more simplistic visualization of specific lines of action and actors involved, we divided the activities in different categories:

4.1 FALLING WALLS

- IYSE Global Launch 2-day Event.
- Activities at the Berlin Science Week aligned with global challenges/SDGs.
- Activities' content of the Breakthrough of the Year competition aligned with global challenges/SDGs.
- Activities of the Falling Walls Female Scientist Talents programme aligned with global challenges/SDGs.
- Local-global multistakeholder debates, addressing global challenges/SDGs and aiming to come up with solutions and actions to tackle them.
- Advocating for the creation of a UN Science Engagement commission (composed by UN commissioners, Science Engagement professionals, scientists, scientific institutions, civil society organisations, industry, policymakers, media, wider society), linked to respective national commissions, that enables the global development of the Science Engagement field.
- Advocating for the creation of an International Day of Science Engagement, with a programme that targets the same goals of the IYSE.

4.2 SCIENCE ENGAGEMENT *NETWORKS*

- Activities to further expand and develop the global platform for Science Engagement, which promotes connection, networking, community support and collaboration, through online/physical activities and online platforms.
- Activities that enable networking and support among Science Engagement practitioners, through initiatives presentation with a focus on challenges and successes as well as potential for collaboration.
- Online activities and platforms that enable sharing of Science Engagement best practices and resources.
- Development of multistakeholder expert working groups that focus on promoting and developing further the Science Engagement field, as well its relevance and intersection for/with science, innovation, industry and policymaking.

4.3 SCIENCE ENGAGEMENT *ADDRESSING GLOBAL CHALLENGES/SDGS*

- Activities that mobilise Science Engagement practitioners, institutions and scientists to implement Science Engagement initiatives aligned with global challenges/SDGs.
- Development of an online platform where Science Engagement practitioners can upload Science Engagement materials associated with global challenges/SDGs (impact resources, methods, tools, evaluation resources, best-practices, etc.);
- Activities which give visibility and promote Science Engagement initiatives that follow two-way, participatory, co-creative and

bottom-up Science Engagement approaches, by:

- > Creating a yearly calendar of science centres activities, citizen science projects, collaborative research projects, etc., that follow these approaches and tackle global challenges/SDGs.
- > Promoting citizen science and responsible research and innovation projects addressing global challenges/SDGs, developed in collaboration between citizen science professionals, scientists, citizens and policymakers.
- Create an equity, diversity and inclusion events guidelines' document for all IYSE activities, for example by promoting initiatives that are online/physically accessible to all, include diverse target groups in activities, are disseminated in several communication formats and channels to maximise reach.
- Promotion activities, on a monthly basis, of Science Engagement initiatives that target underrepresented and underserved identities, minority groups and rural communities.
- Capacity building Science Engagement programmes especially targeting underrepresented and underserved identities, minority groups and rural communities.
- Promotion activities, on a monthly basis, of Science Engagement initiatives focused on SDGs-related topics, specifically focusing on human-caused changes in Earth's natural systems and their consequences on human health and wellbeing.

4.4 SCIENCE ENGAGEMENT *AT SCHOOL*

- Science education and STEAM initiatives at schools, like:
 - > Multistakeholder projects focused on locally relevant challenges, aligned with global challenges/SDGs and creation of national competitions for best projects.

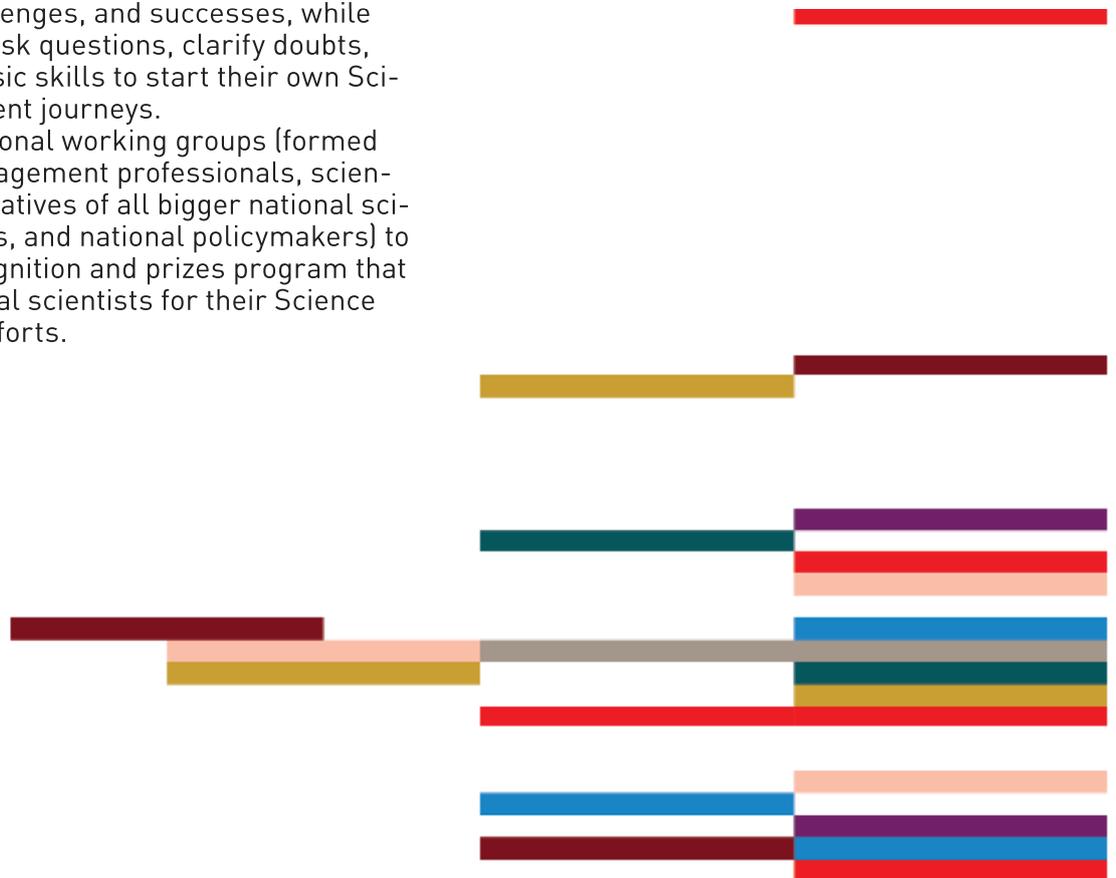
- > Career talks for youth, with Science Engagement practitioners and scientists, who develop work on global challenges/SDGs.

4.5 SCIENCE ENGAGEMENT *AND SCIENTIFIC CULTURE CHANGE*

- Online workshops targeting scientific institutional representatives and scientists, speaking about the societal value and benefits of Science Engagement for scientific institutions and scientists' careers.
- Science Engagement inspiration workshops, targeting scientists and Science Engagement practitioners, where practitioners share best practices, challenges, and successes, while scientists can ask questions, clarify doubts, and acquire basic skills to start their own Science Engagement journeys.
- Creation of national working groups (formed by Science Engagement professionals, scientists, representatives of all bigger national scientific institutes, and national policymakers) to work on a recognition and prizes program that rewards national scientists for their Science Engagement efforts.

4.6 SCIENCE FOR *GLOBAL ACTION*

- Social media campaigns or video series, where scientists and scientific institutions speak about the science developed in their institutes that tackles global challenges.
- Monthly outdoor initiatives, in public spaces, where scientists are incentivized to give short interactive talks and enrol in Q&As about the science they do.



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