# SCIENCES FOR SUSTAINABILITY: FROM THE **NTERNATIONAL YEAR OF BASIC SCIENCES FOR** SUSTAINABLE DEVELOPMENT IN 2022/2023, TO **THE INTERNATIONAL DECADE OF (ALL) SCIENCES FOR SUSTAINABLE DEVELOPMENT 2024 - 2033 PROCLAIMED BY UN AND UNDER THE AUSPICES OF UNESCO**

## MICHEL SPIRO PRESIDENT OF IUPAP

CHAIR OF THE INTERNATIONAL YEAR OF BASIC SCIENCES FOR SUSTAINABLE DEVELOPMENT IN 2022/2023 (IYBSSD) HTTPS://WWW.IYBSSD2022.ORG/EN/HOME/

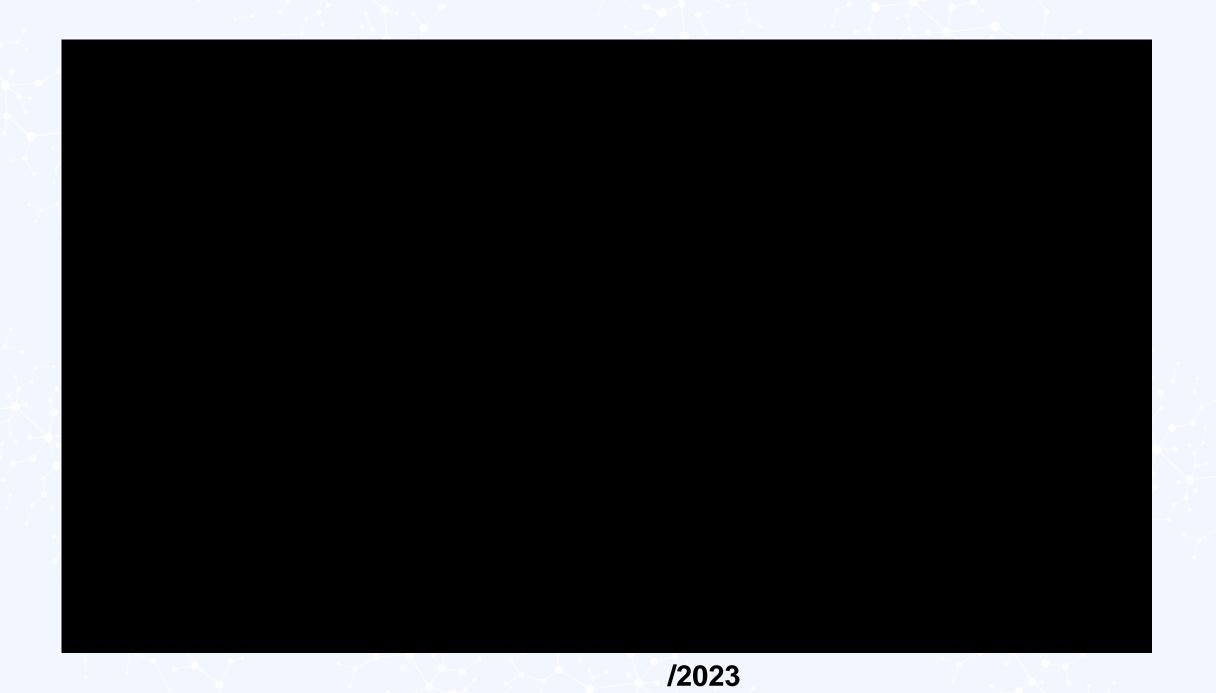
2022/2023



## INTERNATIONAL YEAR OF BASIC SCIENCES FOR SUSTAINABLE DEVELOPMENT IN 2022/2023, UNDER THE AUSPICES OF UNESCO

PROCLAIMED BY THE UNITED NATIONS GENERAL ASSEMBLY ON DECEMBER 2<sup>ND</sup>, 2021 OPENING JULY 8<sup>TH</sup>, 2022 AT UNESCO, CLOSING DECEMBER 15<sup>TH,</sup> 2023 AT CERN RESOLUTION BROUGHT UP BY HONDURAS WITH THE SUPPORT OF ARMENIA, AZERBAIJAN, BAHRAIN, BOLIVIA, BRASIL, BURKINA FASO, CHAD, CHILE, COLOMBIA, CUBA, DOMINICAN REPUBLIC, ECUADOR, EL SALVADOR, FIJI, GEORGIA, GUATEMALA, INDIA, INDONESIA, ISRAEL, JAPAN, JORDAN, KYRGYZSTAN, MALAWI, NICARAGUA, PANAMA, PARAGUAY, PERU, PHILIPPINES, QATAR, RUSSIAN FEDERATION, SAUDI ARABIA, SERBIA, SPAIN, SOUTH AFRICA, THAILAND, VIETNAM HTTPS://WWW.IYBSSD2022.ORG/EN/HOME/

2022/2023







# - CURIOSITY-DRIVEN SCIENCES CONSTRUCT THE POOL OF KNOWLEDGE WHICH FUTURE GENERATIONS WILL USE FOR THEIR DEVELOPMENT

- BASIC SCIENCES ARE NOT ALWAYS AND EVERYWHERE CONSIDERED AS THEY DESERVE, IN THE DISCUSSIONS CONCERNING THE SOCIETAL, ENVIRONMENTAL AND ECONOMIC DEVELOPMENT

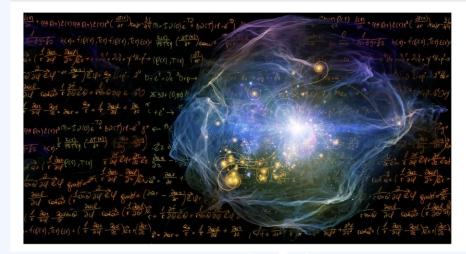
- CURIOSITY-DRIVEN SCIENCES RE-ENCHANT OUR WORLD AND MAKE IT WORTH TO BE SUSTAINABLE

- SERENDIPITY PLAYS A ROLE!



#### **Opening Ceremony**

International Year of Basic Sciences for Sustainable Development



### - BASIC SCIENCES EXPLORE THE SOUL OF THE UNIVERSE!!

2022/



## UNITED NATIONS RESOLUTION

Acknowledging that humanity is exposed to complex challenges, and that the full implementation of the 2030 Agenda for Sustainable Development in all its dimensions requires a more effective and inclusive approach based on synergistic cooperation of all sciences – basic and applied sciences as well as social and human sciences, including traditional knowledge – enabling the development of technology, innovation and education,

*Emphasizing* that the evidence-based methodologies and the models of operation and collaboration used in research can support policymakers in finding adequate responses to the present and future complex challenges, and that open science can help in promoting and strengthening international cooperation,

*Recognizing* that developing countries face specific challenges in accessing new sciences and technologies, stressing the need to bridge the divides within and between countries, and highlighting the importance of financing and capacity-building.

1. Decides to proclaim the period 2024-2033 the International Decade of Sciences for Sustainable Development, within existing structures and available resources, to represent a unique opportunity for humanity to use the critical role that sciences play in the pursuit of sustainable development in its three dimensions as one THE LANGUAGE AND AMBITIONS OF THE UN RESOLUTION DECLARING THE INTERNATIONAL DECADE FOR SUSTAINABLE DEVELOPMENT ARE TELLING OF THE PRIORITIES BEING EMBRACED AND PROMOTED BY THE EARTH-HUMANITY COALITION



Distr.: General 1 September 2023

A/RES/17/

Seventy-seventh session

Agenda item 13

Integrated and coordinated implementation of and follow -up to the outcomes of the major United Nations conferences and summits in the economic, social and related fields

> Resolution adopted by the General Assembly on 25 August 2023

[without reference to a Main Committee (A/77/L.100)]

77/326. International Decade of Sciences for Sustainable Development, 2024-2033

## ABOUT THE EARTH-HUMANITY COALITION

- A global bottom-up network to connect and mobilize all kinds of organizations and transdiciplnary hubs worldwide (academic and non academic)
- Fostering transformative action at multiple scales (from local to global) and leveraging existing efforts, with dynamism, agility, and effectiveness
- Partnering and complementing with UNESCO, ISC and other organizations to achieve the ambitious goals of the IDSSD

In collaboration with









## **AMBITIONS**

### INTEGRATED KNOWLEDGE MOBILIZATION

- Collaborate across all sciences
- Including traditional & indigenous knowledge
- With a focus on sustainability driven by equity and wellbeing for all on healthy territories (regenerative development)

### **REIMAGINING THE ROLE OF SCIENCE**

- Enhance science's responsiveness to humanity's immediate and future needs
- Improve integration with governance and policymaking.

### **TRANSFORMATIVE IMPACT GOALS**

• Reframe processes of research and innovation, and the science-society nexus





## **AMBITIONS**

### **BRIDGING DIVIDES**

• Leverage sciences and humanities to bridge cultural and national divides, promoting global equitable wellbeing

### EQUITABLE KNOWLEDGE CREATION

• Address equity barriers within processes of knowledge creation

### **STRATEGIC OUTCOME FOR 2033**

• Sciences and society much better equipped to master existential threats and achieve positive societal transformations



# CREATING THE CONDITIONS FOR TRANSFORMATIVE CHANGE

#### **GOALS FOR A TRANSFORMATIVE DECADE**

#### **Co-create the Web of Earth-Humanity Sciences:**

- Establish a global network of transdisciplinary hubs
- Promote transformative collaboration across cultures and disciplines
- Extend Big Science's spirit of intercultural bridges and peace

#### Support a new culture of wellbeing:

- Embrace science and wisdom for collective responsibility and creativity
- Redefine human development within Earth's boundaries
- View Earth as a living whole, emphasizing unity and interdependence

#### Formulate critical questions for equitable wellbeing:

 Use diverse knowledge sources to address existential challenges







## SHAPING THE FUTURE OF RESEARCH, INNOVATION, AND DEVELOPMENT

### STRATEGIC GOALS FOR SUSTAINABLE DEVELOPMENT

#### Reframe research and funding agendas:

- Align public and private sector agendas with the novel role of sciences
- Foster integrative approaches in research, innovation, and peace initiatives

#### **Conceive practical instruments for sustainable transformation:**

- Collaborate with all societal actors to navigate sustainable development
- Enable sciences to serve societal needs effectively

#### **Co-design organizational structures to support IDSSD:**

- Build the necessary processes and structures for the Decade's success
- Ensure long-term and significant impact



## PHASES OF THE EARTH-HUMANITY COALITION

#### ACTIVATION (2 YEARS)

- Engage diverse actors and initiate key activities
- Funding up to €1M/year with a small, effective team

#### MOBILIZATION (3 YEARS)

- Expand scope and capacity, involving large communities around the world
- Funding: €5-10M/year with expanded personnel

#### EXPANSION AND CONSOLIDATION (5 YEARS)

- Test and grow integrated science models for global impact
- Funding: Expand budget to influence billions in funding



## ORGANIZATIONAL LANDSCAPE OF EHC

#### **Starting point:**

Initiated by the partnership of IYBSSD and coordinated by IUPAP (2024), expanding to a broader coalition with all disciplines and societal actors

#### Target:

An appropriate "ecosystem" for representation, execution, governance, and accountability in partnership with UNESCO, prioritizing inclusion and diversity







## ACTION PLAN 2024 (DONE)

#### Formation of the Steering Committee:

- Finalize foundational documents
- Support early stages of the Coalition

Inaugurate the EHC with the General Assembly on 16th April 2024

#### Designate the Operational Host for 2024: IUPAP

#### Public image and communication:

- coordinate with UNESCO on general communication for the Decade
- Develop the Coalition's logo, website, and public content

#### Plan of Activities for 2024-2025:

- Identify and set up the Working Threads
- Design and start implementing the EHC Work Programme





## **ACTION PLAN 2024 (IN PROGRESS)**

#### Funding:

 Secure financial contributions to reach a budget around €0,5 million from members and partners (public and private)

#### **Expand the Membership:**

- Organizations representing disciplines across the whole space of human knowledge
- Institutions already embedded in transdisciplinary science for sustainability, especially at local/national levels
- All kinds of organizations supporting the EHC vision

#### Partnerships for resource mobilization:

• Establish alliances to support the Coalition's goals and activities

#### **Co-create the key elements for 2025 onwards:**

- Refined version of the Charter
- Design organizational processes and structures



# THROUGH THE WORKING THREADS

Working Thread	Status	Team / Actions
1) Activate the Web of Earth-Humanity Sciences (WEHS), a worldwide network of thousands of hubs	Active	Luc, Raad, all Steering Committee, <b>others?</b> Recruiting of new members
2) <b>Explore Frontier Concepts</b> at the intersection of multiple epistemologies to unveil the potential of deep transdisciplinary thinking for sustainability	Not active yet	Proposal by Lesley could be a start
3) <b>Promote the Reframing of Human</b> <b>Development and Well-Being</b> , to support the emergence of a new culture of well-being, grounded on leading edge science	Not initiated	CoR has significant capacities, also in connection with WEAII
4) Create WGTHS, the Worldwide Grid of Transdisciplinary Hubs for Sustainability	Active	Michel, Jens, <b>others?</b> Proposal to CERN on Grid MoU Belmont for open access
5) <b>Develop Sciences for Planetary</b> <b>Reconciliation</b> to overcome fractures created by geopolitical clashes and all kinds of violent conflicts	First steps	Carlos, Barbora Bruant Gulejova Rolf Heuer 1st conversation in August



# THROUGH THE WORKING THREADS

Working Thread	Status	Team / Actions
6) <b>Reframe the Interfaces of Science, Policy,</b> <b>Innovation and Society</b> to make science- technology-society interactions evolve to wide participation and co-creation	Initiating	Carlos, Patrick Caron Montpellier Process
7) Promote Transdisciplinary Practices in Education	Not active	BBG interested in helping
8) Establish and Co-Construct the Key Processes, to support the effective implementation of the goals of EHC	Not explicitly addressed	Luc, Raad, all Steering Committee Setting a roadmap is becoming urgent
9) Establish the EHC High-Level Support Committee, to mobilize prestigious personalities and organizations from all sectors in support of the goals of EHC and IDSSD	First steps	Nebojsa, Carlos, Hans d´Orville Proposal by Hans could be a good starting point Connections with #10
10) <b>Reframe Scientific Agendas and Funding</b> , to reflect and accelerate the role of sciences called by IDSSD	First steps	Carlos, Ruth Morgan, others? Public comm (op-eds)? Start discussions with Belmont, Future Earth, ISC?



## IDENTIFYING THE VALUE ADD OF EHC

**Cooperative and open attitude and work** practices

Holistic knowledge integration

**Global bottom-up network of transdisciplinary** hubs

Mobilizing infrastructures for sustainability at all scales

Focus on equity, just futures and planetary reconciliation at all territorial scales

Ambition to reframe science-policy nexus and R&I agendas



### Working for resonance

- Partnering with UNESCO and ISC, to ensure the synergy and complementarity with the wider IDSSD agenda
- Partnering with The Club of Rome, the UNESCO-MOST BRIDGES Coalition and the World Academy of Art and Science to promote integrated knowledge production and action for transformative change at local community and regional levels



## SOME EVENTS...

#### 21-22 APRIL

6<sup>th</sup> African Regional Science, Technology & Innovation Forum (ARSTIF), Addis Ababa – Co-organized by UNESCO

#### **25 APRIL**

IDSSD program @ Zhongguancun Forum, Beijing – Organized by UNESCO

### 10-15 JUNE

SRI Sustainability Research & Innovation 2024, Helsinki and Espoo – Organized by Future Earth & Belmont Forum

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#### 20-23 NOVEMBER 2024

World Science Forum

#### 22-25 SEPTEMBER 2025

World Conference on Science and Art for Sustainability, Belgrade – Organized by WAAS









### **CURRENT EHC STEERING GROUP:**

- Michel Spiro, President of IUPAP and Chair of the Steering Committee of IYBSSD, France
- Carlos Alvarez Pereira, The Club of Rome, Spain
- Lesley Green, University of Cape Town, South Africa
- Steven Hartman, UNESCO-MOST BRIDGES Coalition, Sweden
- Nebojša Nešković, The World Academy of Art & Science, Serbia
- Marian Nkansah, Kwame Nkrumah University of Science and Technology, Ghana
- Prajval Shastri, Raman Research Institute, India
- Luc Allemand, Coordinator, The Earth-Humanity Coalition
- Raad Sharar, Program Coordinator, The Club of Rome

In collaboration with





