

Светска конференција о науци и уметности за одрживост
23. и 24. септембар 2025. год., Београд, Србија

World Conference on Science and Art for Sustainability
September 23 and 24, 2025, Belgrade, Serbia



Програм 4

Program 4

Међународна декада наука за одрживи развој
2024–2033. год.

International Decade of Sciences for Sustainable Development
2024–2033

Science and Art for Sustainability

On August 25, 2023, **the United Nations (UN) General Assembly** proclaimed **the International Decade of Sciences for Sustainable Development (IDSSD)**, from 2024 to 2033. The idea of IDSSD was launched by **the International Union of Pure and Applied Physics (IUPAP)**, **the World Academy of Art and Science (WAAS)**, and **The Club of Rome (CoR)** in September 2022 in Belgrade, Serbia, within *the World Conference on Basic Sciences for Sustainable Development*, as the flagship event for Europe within *the International Year of Basic Sciences for Sustainable Development (IYBSSD)*. The UN General Assembly gave the task to prepare and implement the overall program of IDSSD to the **UN Educational, Scientific and Cultural Organization (UNESCO)**.

The integral goal of **IDSSD** is to significantly contribute to tracing the pathways towards regeneration and sustainability of nature and society as well as human security and peace. This should be done following **eight Human Security Dimensions (HSDs)**, specified by **the UN Development Programme (UNDP)** in January 1994 and September 2022, and **17 Sustainable Development Goals (SDGs)**, defined by the UN General Assembly in September 2015. These dimensions and goals are related to the existential problems and challenges facing the Earth and humanity today, which are: depletion of natural resources, pollution, climate change, and biodiversity loss; human inequality and inequity, and corruption; intercultural conflicts and forced migrations; political and economic sanctions, color revolutions, military interventions, and wars. Today, it is clear that these problems have complex and multiple disciplinary character while the efforts of scientific communities are mostly limited to separated disciplines. In addition, the problems are interdependent and can mutually reinforce one another. Therefore, a systemic and multiple disciplinary approach in looking for their solutions is necessary. However, the current state of affairs clearly shows that it will not be possible to carry out the SDGs and HSDs by 2030, as it was planned.

On April 16, 2024, **The Earth-Humanity Coalition (EHC)** was founded as an association of global, regional, and national scientific organizations with the task to prepare and implement, in close cooperation with UNESCO, various initiatives within the overall IDSSD program. IUPAP, WAAS, CoR, and **the UNESCO-MOST-BRIDGES Coalition (BRIDGES)** were among the founding Members of EHC. The first of these initiatives was **the EHC-WAAS Program of Sciences for Sustainable Development**, which had been prepared by WAAS. It currently includes two series of webinars, several world conferences, and a number of journal articles and reports.

The EHC-WAAS Program is based on the conviction that acquiring knowledge along the chain of basic, applied, social, and humanistic disciplines by scientific communities worldwide, within the disciplinary boundaries, must be often supplemented with multidisciplinary and interdisciplinary analyses followed by transdisciplinary syntheses. This endeavor should sometimes include traditional local knowledge and the results of its interactions with contemporary science generated knowledge. The main aim of the Program is to contribute to the establishment of a solid foundation for advancements of technology, agriculture, industry, and education towards sustainable, secure, and peaceful development at the local, national, regional, and global scales. **Besides, in the Program, relations between science and art are underlined, as between two distinct but complementary methods of inquiry about nature, society, and human beings with the same aim – to unravel the sense of the universe and communicate their findings to others.** The results of science, being objective, and the results of art, being subjective, should influence and enrich one another, and thus push farther the boundaries of a true and deep understanding of the universe.

The EHC-WAAS Program should be applied worldwide, in both **the Global North** and **the Global South**, and in their cooperation following the principles of multilateralism, guaranteeing the respect of rights of every country in every domain, and the objective of well-being for all on a healthy planet.

It is well known that relationships between scientists and artists on the one side and policy-makers and all other science and art stakeholders in the public and private sectors on the other side are characterized by a lack of respect and trust. Therefore, **the EHC-WAAS Program** includes a strong request that novel ways of communication and cooperation of the two sides, based on sincere mutual respect and trust, must be developed and nurtured. The aim is to overcome the barriers that prevent these interactions as well as to effectively use the levers that stimulate them. This should lead to the evolution of these communications from the one-sided and market-driven ones to a wide-participatory co-creation of approaches and agendas of **science, technology, art, and education** driven by the societally relevant problems and challenges. Besides, all three pillars of **science and art diplomacy**, being science and art for diplomacy, science and art in diplomacy, and diplomacy for

science and art, should be continually used. These pillars cover the soft power of science and art to improve relations between countries even where official relations are strained or severed, the ways how science and art achievements help inform diplomatic objectives and foreign policy, and the ability of diplomacy to facilitate cooperation in science and art across borders, respectively.

The World Conference on Science and Art for Sustainability, to be held on September 22–24, 2025 in Belgrade, Serbia, will be the first conference within **the EHC-WAAS Program** and a flagship event within **IDSSD**. Its program is given below. **The aims of the Conference are: to listen to prominent individuals acting in different science and art disciplines and coming from different parts of the world, to induce fruitful interactions among them, and to deduce from all that some concrete conclusions on the contributions of science and art to sustainable, secure, and peaceful development to be presented to the interested policy-makers and other science and art stakeholders at the local, national, regional, and global scales.** The organization of the event is funded by the Alliance of National and International Science Organizations for the Belt and Road Regions (ANSO), the World Academy of Art and Science (WAAS), the Serbian Academy of Sciences and Arts (SASA), PSP Farman Holding, Belgrade, Serbia, and Jeff Ubois and Smiljana Antonijević.

Organizing Institutions

- o **Host:**
 - **Serbian Academy of Sciences and Arts (SASA)**
- o **Co-Hosts:**
 - **Alliance of National and International Science Organizations for the Belt and Road Regions (ANSO)**
 - **United Nations Educational, Scientific and Cultural Organization (UNESCO)**
- o **Other Institutions:**
 - **World Academy of Art and Science (WAAS)**
 - **The Earth-Humanity Coalition (EHC)**
 - **The Club of Rome (CoR)**
 - **Serbian Chapter of The Club of Rome (SC CoR)**
 - **UNESCO-MOST-BRIDGES Coalition (BRIDGES)**

Program and Organizing Committee

- o **Co-Chairs:**
 - **Vladimir Kostić**, Full Member, SASA
 - **Hongping He**, Vice President, ANSO; Vice President, Chinese Academy of Sciences (CAS)
 - **Nebojša Nešković**, Vice President for Science and Technology, WAAS
- o **Other Members:**
 - **Zoran Knežević**, President, SASA
 - **Weidong Liu**, Executive Director, ANSO
 - **Nebojša Lalić**, Secretary General, SASA; Member, Governing Board, ANSO
 - **Amal Kasry**, Chief of Section, Natural Sciences Sector, UNESCO
 - **Goran Milašinović**, President, Commission of Serbia for Cooperation with UNESCO
 - **Dragan Đuričin**, Member, Advisory Committee for the Implementation of IDSSD, UNESCO
 - **Michel Spiro**, Chair, Steering Committee, EHC
 - **Garry Jacobs**, President and Chief Executive Officer, WAAS
 - **Carlos Álvarez Pereira**, Secretary General, CoR
 - **Dragan Simeunović**, Vice President, SC CoR
 - **Steven Hartman**, Founding Executive Director, BRIDGES

September 23, 2025, Tuesday, Day 1

OPENING SESSION, Serbian Academy of Sciences and Arts

- 9:00–9:15 **Words of welcome:**
Nebojša Lalić, Secretary General, Serbian Academy of Sciences and Arts (SASA); Governing Board, Alliance of National and International Science Organizations for the Belt and Road Regions (ANSO)
- 9:15–9:45 **Opening addresses:**
Sukit Limpijumnong, President, Alliance of National and International Science Organizations for the Belt and Road Regions (ANSO); President, National Science and Technology Development Agency, Pathum Thani, Thailand: video
Zhijun Yi, Deputy Executive Director of the Secretariat, Alliance of National and International Science Organizations for the Belt and Road Regions (ANSO)
Garry Jacobs, President and Chief Executive Officer, World Academy of Art and Science (WAAS); Chairman of the Board of Directors and Chief Executive Officer, World University Consortium (WUC); The Club of Rome (CoR)

SECTION 1: CONTRIBUTIONS OF BASIC AND APPLIED SCIENCES TO SUSTAINABILITY, Serbian Academy of Sciences and Arts

9:45–11:35 **SESSION 1.1**

Moderation:

Michel Spiro, Chair, Steering Committee, The Earth-Humanity Coalition (EHC); Past President, International Union of Pure and Applied Physics (IUPAP)

Talks:

Borko Furht, Florida Atlantic University (FAU), Boca Raton, USA; Director, National Science Foundation (NSF) Industry-University Cooperative Research Center for Advanced Knowledge Enablement, FAU: *Data Science and Artificial Intelligence* (mathematics and computer science)

Gian Francesco Giudice, Head, Theoretical Physics Department, European Organization for Nuclear Research (CERN), Geneva, Switzerland: *CERN and the Role of Big Science in Society* (basic physics)

Ugo Bardi, National Interuniversity Consortium of Materials Science and Technology, University of Florence, Italy; The Club of Rome (CoR); World Academy of Art and Science (WAAS): *Not Just Global Warming: CO₂ as a Pollutant* (materials science)

Marian Asantewah Nkansah, Department of Chemistry, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana; Ghana Academy of Arts and Sciences; African Academy of Sciences: *Chemistry and Society* (chemistry)

Discussion

11:35–12:00 *Coffee break*

12:00–13:50 **SESSION 1.2**

Moderation:

Goran Milašinović, Director, Pacemaker Center, University Clinical Center of Serbia, Belgrade; President, Commission of Serbia for Cooperation with the United Nations Educational, Scientific and Cultural Organization (UNESCO)

Talks:

Aleksandr Bugay, Director, Laboratory of Radiation Biology, Joint Institute for Nuclear Research (JINR), Dubna, Russia; Commission on Biological Physics, International Union of Pure and Applied Physics (IUPAP): *Radiation Induced Disorders in Human Brain in Interplanetary Missions* (biology)

Detai Zhou, Advanced Nuclear Energy Center, Institute of Modern Physics, Chinese Academy of Sciences, Lanzhou, China: *Control and Safety System of the Chinese initiative Accelerator Driven System (CiADS)* (electronic engineering)

Dejan Trbojevic, Collider Accelerator Department, Brookhaven National Laboratory, Upton, New York, USA: *Accelerators for Ion Cancer Therapy* (electrical and mechanical engineering)

Andre Terzic, Mayo Clinic, Rochester, Minnesota, USA: *Healthspan-Lifespan Gap: Global Challenge to Healthy Longevity* (medicine)

Discussion

13:50–14:50 *Lunch break*

14:50–16:40	SPECIAL SESSION 1: CONTRIBUTIONS OF SCIENCES TO SUSTAINABLE DEVELOPMENT OF THE BELT AND ROAD REGIONS
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Moderation:

Nebojša Lalić, Secretary General, Serbian Academy of Sciences and Arts (SASA); Governing Board, Alliance of National and International Science Organizations for the Belt and Road Regions (ANSO)

Talks:

Klaus Mainzer, Senior Excellence Faculty, Technical University of Munich, Germany; Carl Friedrich von Weizsäcker Center, Eberhard Karls University of Tübingen, Germany; President, European Academy of Sciences and Arts (EASA): *An Alliance of National and International Science for Sustainability Needs Sustainable AI* (philosophy of science)

Charalampos Baniotopoulos, School of Engineering, University of Birmingham, UK; Civil Engineering Department, Aristotle University of Thessaloniki, Greece; European Academy of Sciences and Arts (EASA): *Sustainable Energies in the Era of Artificial Intelligence* (energetics)

Athanasia Printza, School of Medicine, Aristotle University of Thessaloniki, Greece; European Academy of Sciences and Arts (EASA): *Transforming Health Care for Sustainability and Health Outcomes that Matter to People* (medicine)

Žiga Turk, Faculty of Civil and Geodetic Engineering, University of Ljubljana, Slovenia; European Academy of Sciences and Arts (EASA): *Sustainable and Regenerative Economics: Making the World a Better Place* (economics)

Mariana Tian, Scientific Secretary, Division "Man and Society", Bulgarian Academy of Sciences, Sofia: *Belt and Road Initiative (BRI) in the Context of Interaction and Interdependence between the EU and China* (political science and law)

Discussion

16:40–18:10 **SPECIAL SESSION 2: VIRTUAL SCIENCE AND ART EXHIBITIONS**

Moderation:

Vesna Vučinić, Faculty of Philosophy, University of Belgrade, Serbia; World Academy of Art and Science (WAAS); Former Chair, World Council of Anthropological Associations (WCAA)

Exhibitions:

Pashington Obeng, Chief Executive Officer, Pan African Heritage Museum, Accra, Ghana: *Origin of Humanity: Pan African Heritage Perspective* (archaeological exhibition)

Pu Chen and **Marta Nešković**, Institute for the History of Natural Sciences, Chinese Academy of Sciences, Beijing: *Investigating Things and Extending Knowledge: A Visual History of Natural Science in China* (scientific exhibition)

Yev Kravt, ART for The World, Geneva, Switzerland: *Doppelgänger: Reflections, Replicas and the Self in the Age of the Digital Double* (visual arts exhibition)

Discussion

September 24, 2025, Wednesday, Day 2

SECTION 2: CONTRIBUTIONS OF SOCIAL AND HUMANISATIC SCIENCES TO SUSTAINABILITY, Serbian Academy of Sciences and Arts

8:30–10:20 **SESSION 2.1**

Moderation:

Carlos Álvarez Pereira, Secretary General, The Club of Rome (CoR); World Academy of Art and Science (WAAS); Steering Committee, The Earth-Humanity Coalition (EHC)

Talks:

Nemanja Mrdić, Institute of Archaeology, Belgrade, Serbia: *Viminacium from a Roman Capital City to the Leading Sustainable Archaeological Park* (archaeology)

Feng Jiang, Chairman, Shanghai Area Studies Association, China; Chairman of the Council, Shanghai Academy of Global Governance and Area Studies, China: *Multilateralism* (political science)

Robert Costanza, Institute of Global Prosperity, University College, London, UK; Crawford School of Public Policy, Australian National University, Canberra; The Club of Rome (CoR): *Creating a Sustainable Wellbeing Future for Humans and the Rest of Nature* (economics)

Tibor Várady, Serbian Academy of Sciences and Arts (SASA): *International Law – Between Sustainable Reality and Sustainable Phrases* (law)

Discussion

10:20–10:45 *Coffee break*

10:45–12:35 **SESSION 2.2**

Moderation:

Dragan Đuričin, Advisory Committee for the Implementation of the International Decade of Sciences for Sustainable Development, United Nations Educational, Scientific and Cultural Organization (UNESCO); World Academy of Art and Science (WAAS); Governing Board, Serbian Chapter of The Club of Rome (SC CoR)

Talks:

Dragan Simeunović, Faculty of Political Sciences, University of Belgrade, Serbia; Vice President, Serbian Chapter of The Club of Rome (SC CoR): *Politics as the Art of Illusion* (political science)

Nebojsa Nakicenovic, Vice Chair, Group of Chief Scientific Advisors, European Commission; Former Deputy Director General, International Institute for Applied Systems Analysis (IIASA), Laxenburg, Austria; Vienna University of Technology, Austria; World Academy of Art and Science (WAAS), *Integrated Science and Research for the Benefit of the People and the Planet* (economics)

Alessio Surian, Department of Philosophy, Sociology, Education and Applied Psychology, University of Padua, Italy: *A Cultural-Historical Approach to Learning and Sustainability* (psychology)

Fadwa El Guindi, Board of Trustees, World Academy of Art and Science (WAAS); University of California at Los Angeles, USA: *Human Security Relativized* (anthropology)

Discussion

12:35–13:30 *Lunch break*

SECTION 3: CONTRIBUTIONS OF ARTS TO SUSTAINABILITY, Serbian Academy of Sciences and Arts

13:30–15:20 **SESSION 3.1**

Moderation:

Vladimir Kostić, Serbian Academy of Sciences and Arts (SASA)

Talks:

Vesna Goldsworthy, Department of English and Creative Writing, University of Exeter, UK; School of Literature, Drama and Creative Writing, University of East Anglia, Norwich, UK: *Iron Curtain: The Novel as an Analytical Form* (prose)

Maja Herman Sekulić, Vice President, International Academy of Ethics, Chandigarh, India; Academy of American Poets; PEN America; Serbian PEN Center; Association of Writers of Serbia; Serbian Literary Society: *The Digital Galaxy* (essays and poetry)

Mario Petrucci, Royal Literary Fund, London, UK; Oxford Brookes University, UK; University of Westminster, London, UK; Brunel University of London, UK; City and Guilds of London Art School, UK; Imperial War Museum, London, UK: *Art and Sustainability: Salvation and the Unholy Trinity* (poetry/art)

Anni Kumari, Department of Visual Arts, Ashoka University, Sonapat, India: *Spirals: The Structural and the Spectacular across Mathematics and Painting* (painting)

Discussion

Moderation:

Mirjana Nikolić, Rector, University of Arts in Belgrade, Serbia

Talks:

Vera Milanković, Faculty of Music, University of Arts in Belgrade, Serbia; Serbian Chapter of The Club of Rome (SC CoR): *The Song Was Our Salvation* (music)

Irena Živković, Faculty of Applied Arts, University of Arts in Belgrade, Serbia: *Applied Arts and Materials Science* (applied arts)

Áine Clarke, Co-Founder, Azimut Company, Brussels, Belgium: *The Power of Visual Storytelling: Co-Creating a World of Three Zeros* (film)

Aleksander Zidanšek, Jožef Stefan International Postgraduate School and Jožef Stefan Institute, Ljubljana, Slovenia; Faculty of Natural Sciences and Mathematics, University of Maribor, Slovenia; Board of Trustees, World Academy of Art and Science (WAAS); European Academy of Sciences and Arts (EASA); The Club of Rome (CoR); President, Slovenian Association for The Club of Rome: *New Imaging Methods and Innovative Development of Students' Competencies* (education)

Discussion

**CONCLUDING SESSION: INTERFACES BETWEEN SCIENCE, ART, AND SOCIETY,
Serbian Academy of Sciences and Arts**

17:10–18:30 **Talks:**

Anisha Nepali, House of Representatives, Federal Parliament of Nepal: *Science and Art: Working Together for a Sustainable Future – A Perspective from Nepal*

Paul Shrivastava, Smeal College of Business, Pennsylvania State University, University Park, USA; Co-President, The Club of Rome (CoR): *Science & Art Interfaces for Peaceful Regenerative Ecocivilization*

Steven Hartman, Founding Executive Director, UNESCO-MOST BRIDGES Coalition (BRIDGES); World Academy of Art and Science (WAAS); Steering Committee, The Earth-Humanity Coalition (EHC): *Bringing the Divides of Academic Science Domains and Non-Academic Knowledge Systems*

Garry Jacobs, President and Chief Executive Officer, World Academy of Art and Science (WAAS); Chairman of the Board of Directors and Chief Executive Officer, World University Consortium (WUC); The Club of Rome (CoR): *Reliable Knowledge as the Reconciliation of Art & Science*