



# **ANSO Online Open Conference & The Third International Science Forum on the Belt and Road Initiative**

## **Session 4: Fundamental Science and Higher Education**

### **1. Background**

The Alliance of International Science Organizations (ANSO) is a non-profit and non-government international scientific organization founded in 2018 by 37 international science and education organizations around the world. It is committed to promoting shared sustainable development and the advancement of the UN Sustainable Development Goals through promoting and implementing concrete international cooperative initiatives in Science, Technology, Innovation and Capacity Building (STIC).

The 2<sup>nd</sup> ANSO General Assembly (GA) scheduled in May 2020 was postponed due to the worldwide outbreak of COVID-19. Discussed and agreed by the ANSO Governing Board (GB) during its 3<sup>rd</sup> annual meeting on 9<sup>th</sup> Nov. 2020, the 2<sup>nd</sup> ANSO GA was re-scheduled in 2021, and a series of topic-focused online meetings will be co-organized with ANSO Members and Partners, which include 1) Climate Change and Its Impact, 2) Public Health and Food Safety, 3) Agriculture, 4) Biodiversity, 5) Fundamental Science and Higher Education, 6) Ecology and Green Technology, and 7) Innovation and Tech-Transfer.

## **2. About this Session – Fundamental Science and Higher Education**

The mission of fundamental science is to improve our understanding of the world, and its role in nurturing new knowledge is widely recognized. However, the funding for fundamental science is often placed in a subordinate position in national R&D policy-making because the direct contribution of fundamental science to innovation and economic growth is considered to be less than other fields.

To meet the political and societal demands, performers and funders of basic research and fundamental science at universities are facing the challenge of incorporating innovation perspectives into their core activities. Although fundamental science and basic research are not only the basis of stimulating major technological innovation, but also essential for training future professionals and strengthening knowledge societies, the R&D funding structure appears to be increasingly inclined to support the applied sciences. How to foster the regime of fundamental and applied sciences to create an integrated research and education system serving for technological innovation becomes important tasks for policy makers of education and science.

The global trend shows moving university research towards technology and innovation affecting young researchers' career choice, which has a great impact to the future of the scientific world.

UNESCO designated 2022 the International Year of Basic Sciences for Sustainable Development (IYBSSD) and it was also acknowledged by the World Science Forum in November 2019. IYBSSD is also put forward to be proclaimed by the UNGA.  
<https://www.iybssd2022.org/en/about-us/>

This workshop aims to discuss how to adopt innovation perspectives into higher education systems with special attention to the challenges

of fundamental science in ANSO countries. We will focus on sharing the concerns, arguments and experiences from managers of universities, research groups and funding agencies by involving all participants in the debate.

### **3. Date**

27-28 May 2021

Live Streaming (no registration required)

YouTube: <https://www.youtube.com/c/MTA1825/featured>

Bilibili: <https://live.bilibili.com/22476145>

### **4. Key Issues of the Meeting**

**Key issues include but are not limited to:**

- 1) Inter- and multidisciplinary nature of fundamental science, and its function to national, regional and global socio-economic development.
- 2) How to strengthen the capacity of fundamental science and basic research for developing countries in the policy-making process of universities, institutes and funding agencies?
- 3) How to bridge the gaps between fundamental and applied sciences to support the technological innovation?
- 4) Role of research institutions in higher education training, lessons and the best practices.
- 5) Future international cooperation in fundamental science and higher education

## 5. Agenda of the Webinar

### *FIRST DAY – Session 1.*

**Theme: Changing and Challenging Science and Education Policy Landscape**

*Presiding chair* Csaba Pléh, Co-Chair, Methodology of Science Education, Academia Europaea Budapest Knowledge Hub

*Facilitator* Gergely Böhm, Head of the President's and Vice Presidents' Office

Budapest Time (CET/GMT+1)	Beijing Time (GMT+8)	Activities and Description
13:00 – 13:20	19:00 – 19:20	<p><b>Welcome Remarks</b></p> <p><b>Future of Basic Science – Challenges and Responsibility of Universities</b></p> <p><i>Ferenc Hudecz</i>, Vice President, Hungarian Academy of Sciences</p> <p><i>Qasim Jan</i>, Vice President of ANSO, Pakistan Academy of Sciences</p> <p><i>Peggy Oti-Boateng</i>, Director, Division of Science Policy and Capacity-Building, UNESCO</p>
13:20 – 13:35	19:20 – 19:35	<p><b>Introductory Lecture: Higher Education Policies in Europe with Special Focus on the Role of Basic Sciences</b></p> <p><i>Gábor Halász</i>, Higher Education and Innovation Research Group, Eötvös Loránd University, Budapest; Lead expert in the program “The Belt and Road Dialogue on Education” coordinated by the Chinese National Institute for Educational Sciences</p>
13:35 – 13:50	19:35 – 19:50	<p><b>Fusing Research and Education: An Innovative Practice of University of Chinese Academy of Sciences</b></p> <p><i>Yan-fen Wang</i>, Executive Vice President, University of Chinese Academy of Sciences (UCAS)</p>
13:50 – 14:05	19:50 – 20:05	<p><b>Fundamental Science - The Key Driver of Innovation</b></p> <p><i>Ivanka Popović</i>, Vice-President, Danube Rectors' Conference</p>
14:05 – 14:20	20:05 – 20:20	<p><b>Strategy and developing fundamental science and higher education in newly founded states in the Western Balkans</b></p> <p><i>Erhard Busek</i>, Chairman, Institute for the Danube Region and Central Europe</p>

14:20 – 14:35	20:20 – 20:35	<b>On the Establishment of Fudan Hungary University in Budapest</b> <i>Zhi-min Chen</i> , Vice President, Fudan University, China
14:35 – 14:50	20:35 – 20:50	<b>Interaction of Universities and Research Institutions as a Key Element of Education of Young Researchers in Russia</b> <i>Alexei R. Khokhlov</i> , Vice President, Russian Academy of Sciences
14:50 – 15:10	20:50 – 21:10	<b>Panel discussion on key issues for the first day</b>
15:10 – 15:15	20:10 – 21:15	<b>Conclusion and Wrap-up</b> <i>Csaba Pléh</i> , Co-Chair, Methodology of Science Education, Academia Europaea Budapest Knowledge Hub

## *SECOND DAY – Session 2.*

**Theme: Fundamental sciences at universities – Hands-on experiences and challenging practical problems**

*Presiding chair*                      *Qasim Jan, Vice President of ANSO*

*Facilitator*                              *Jing-hua Cao, Executive Director of ANSO Secretariat*

<b>Budapest Time (CET/GMT+1)</b>	<b>Beijing Time (GMT+8)</b>	<b>Activities and Description</b>
13:00 – 13:05	19:00– 19:05	<b>Welcome Remarks</b> <i>Jing-hua Cao, Executive Director, ANSO Secretariat</i>
13:05 – 13:20	19:05– 19:20	<b>Mathematics: Opportunities and Challenges</b> <i>Ya-xiang Yuan, Academician, Academy of Mathematics and Systems Science, Chinese Academy of Sciences</i>
13:20 – 13:35	19:20– 19:35	<b>Consolidate Fundamental Science Education Towards Innovation-driven Development</b> <i>Zuo-yu Zhou, Vice President, Beijing Normal University</i>
13:35 – 13:50	19:35– 19:50	<b>The Dynamics of Transnational Knowledge Generation and Transfer – Lessons from Singapore</b> <i>Balázs Gulyás, Professor, President’s Chair in Translational Neuroscience, Nanyang Technological University, Singapore</i> <i>Sir George Radda, Professor Emeritus, University of Oxford and Former Chairman, Biomedical Research Council, Singapore</i>
13:50 – 14:05	19:50– 20:05	<b>Tensions Between the Value Systems of Managers and Basic Science: The Case of Hungary</b> <i>Csaba Pléh, Co-Chair, Methodology of Science Education, Academia Europaea Budapest Knowledge Hub</i>
14:05 – 14:20	20:05– 20:20	<b>Transdisciplinary and Collaboration: Key Elements for the Integration of Basic and Applied Sciences Through Knowledge Mobilization</b> <i>Alejandro Jofré Cáceres, Provost, Universidad de Chile</i>

<b>14:20 – 14:35</b>	<b>20:20– 20:35</b>	<p><b>Bridging Gap Between Basic and Applied Sciences Using Translation Research – Case Study at Aga Khan University, Pakistan</b></p> <p><i>Anwar-ul-Hassan Gilani</i>, Vice Chancellor, University of Haripur, Pakistan; Former Chairman, Pakistan Council for Science and Technology; Current Council Member of Pakistan Academy of Sciences</p>
<b>14:35 – 14:50</b>	<b>20:35– 20:50</b>	<p><b>Agile and Open Source Hardware for Next-generation Computing</b></p> <p><i>Yun-gang Bao</i>, Deputy Director, Institute of Computing Technology, Chinese Academy of Sciences</p>
<b>14:50 – 15:10</b>	<b>20:50– 21:10</b>	<b>Panel discussion on key issues for the second day</b>
<b>15:10 – 15:15</b>	<b>20:10– 21:15</b>	<p><b>Conclusion and Wrap-up</b></p> <p><i>Qasim Jan</i>, Vice President of ANSO</p> <p><i>Jing-hua Cao</i>, Executive Director, ANSO Secretariat</p>

## **6. Organizers**

### **Leading Organizers:**

Hungarian Academy of Sciences (MTA)

Chinese Academy of Sciences (CAS)

Alliance of International Science Organizations (ANSO)

## **7. Organizing Committee**

### **Co-Chairs:**

Prof. Chunli Bai, President of ANSO

Prof. Ferenc Hudecz, Vice President of MTA

### **Members:**

Csaba Pléh, Co-Chair, Methodology of Science Education, Academia Europaea Budapest Knowledge Hub

Alexander Sergeev, President of Russian Academy of Sciences (RAS)

Qasim Jan, President of the Pakistan Academy of Sciences (PAS)

Ennio Vivaldi Véjar, Rector of Universidad de Chile

László Borhy, Rector of Eötvös Loránd University, President of the Hungarian Rectors' Conference