



Second International Space Exploration Forum (ISEF2)

Tokyo, 3 March 2018

Forum Summary

The 2nd International Space Exploration Forum (ISEF 2) was held in Tokyo on 3 March 2018. High-level governmental representatives from 42 nations and 3 international/intergovernmental organizations (listed in Attachment-1) participated in extensive discussions on the importance of international cooperation for sustainable promotion of space exploration.

The forum was chaired by **Yoshimasa Hayashi, Minister of Education, Culture, Sports, Science and Technology of Japan**, and moderated by **Koichi Wakata, International Space Station (ISS) program manager and Japan Aerospace Exploration Agency (JAXA) astronaut**.

Opening Session

A video message from **Japanese Prime Minister Shinzo Abe** called for more international cooperation and accelerating the debate on returning to the Moon and for further exploration.

Minister Hayashi then welcomed participants, noting the importance of the forum, which was to discuss the promotion of the sustainable development of space exploration as more and more countries are becoming interested in exploring for space and the new opportunities such exploration presents.

William F. Hagerty IV, the U.S. ambassador to Japan and serving as a representative from the host of the first ISEF in 2014, made his opening remarks. He introduced the recent US policy decision to end direct government support to the ISS in 2025. He clarified that this decision does not mean that the platform itself will be deorbited in 2025 but rather that its operation will be transitioned to the private sector. He also explained the US determination to lead a return of human to the Moon then noted the importance of the common principles for international space exploration and for commercial space activities.



The opening remarks of the European Union (EU) representatives followed, as one of the hosts of the High-level International Space Exploration Dialogue in 2011 in Italy.

Federica Mogherini, High Representative of the European Union for Foreign Affairs and Security Policy and Vice-President of the European Commission (EC), pointed out in her video message that the need for common rules on space issues was greater than ever, and only international cooperation will enable us to keep space clean, secure and accessible to all as a global commons. She also stated her expectation for agreement on the principles for international space exploration during the ISEF 2 and her intention to hold the next ISEF in Europe.

Following this video message, **Pierre Delsaux, the EC's Deputy Director General of International Market, Industry, Entrepreneurship and SMEs**, noted that space exploration will promote international cooperation and will advance in a sustainable manner by returning its results to productive use on earth. He also said that the EU will support sending humans into space.

Session I Summary: Significance and Benefits of Space Exploration

Session 1 was led by **Pascale Ehrenfreund, Chair of the German Aerospace Agency (DLR)**, and **Igor Komarov, Director General of State Space Corporation Roscosmos**.

Komarov enumerated the benefits of space exploration to society in such areas of everyday life as health and medicine, the environment, new engineering materials, robotic technologies and life support systems. He also said that governments should play an important role in space exploration and in national long-term investment in the development of new technologies. He pointed out that ISS is one of the brightest examples of international cooperation.

Introducing German's national and international space exploration activities, **Ehrenfreund** stated that the purpose of space exploration is to pursue opportunities for international and commercial collaboration in order to leverage the financial resources and capabilities of other nations and commercial entities.

After her statement, the moderators asked eight panelists to make remarks, followed by a Q&A session.

Scott Pace, Executive Secretary of the US's National Space Council, talked about the international aspects of space exploration and highlighted the ISS as a great international achievement in human spaceflight. Concerning the US decision to end direct support for the ISS in 2025, he stated that the US will work closely with all ISS partners on this



transition phase so that industry can continue to operate certain elements and capabilities of the ISS. He also invited countries to cooperate with the US in establishing infrastructure such as the Lunar Orbital Platform-Gateway.

Certain panelists highlighted space exploration as their inspiration.

Alice Bunn, International Director of the UK Space Agency, cited inspiration as well as scientific and technological opportunities as reasons for space exploration including human flight. She touched on the examples of outreach activities by astronauts in UK schools.

Ahmad Abdulla Belhoul Al Falasi, the United Arab Emirates's Minister of State for Higher Education, also underlined the importance of inspiration from and education about space exploration. He stated that engaging in space activities will motivate the younger generation to choose STEM topics for study and to pursue careers in these fields in their own countries. He also asserted that the UAE believes that space exploration will act as a catalyst to accelerate society toward a diversified knowledge-based economy.

Other panelists talked about advancements in science, technology and innovation caused by inspiration.

Sylvain Laporte, President of the Canadian Space Agency, spoke about Canada's experience joining the ISS program as a smaller international partner. He explained how robotics innovation in industry and academia, required for the ISS, lead to the creation of novel medical applications. He cited this as an example of benefits stemming from investments in space exploration.

Turki Bin Saud Bin Mohammad Al Saud, President of King Abdulaziz City for Science and Technology (KACST), Saudi Arabia, stated that Saudi Arabia had made great effort to foster space science and technology and to use space as a strategic frontier for technology and innovation.

Other speakers stressed the economic aspects of space exploration.

Etienne Schneider, Luxembourg's Deputy Prime Minister and Minister of the Economy, stated that the government of Luxembourg was convinced of the enormous potential of space resources. He introduced an initiative named *spaceresources.lu* that had been launched in 2016 to promote peaceful exploration and sustainable use of space resources for the benefit of humankind.

Giorgio Starace, Ambassador of Italy to Japan, noted that space exploration is a driver of the economy and development. He recommended countries work on a



sustainable short-term plan to use available assets and expertise, and to move forward to cis-lunar orbit as a fundamental step for both deep space and lunar exploration.

Marius-Ioan Piso, President and CEO of the Romanian Space Agency, spoke of the various values that the Romanian government considers important: science, security, and services. He stated that a step-by-step approach to future space exploration programs should be considered, and that our capabilities for low-earth orbit should be maintained and developed. He also said that future missions should benefit new desires in advanced technologies such as quantum communication and additive manufacturing.

In sum, the participants, recognizing that space exploration represents an important challenge to explore new frontiers and to expand human activity in outer space, identified international cooperation, inspiration, and education connected to science, technology and innovation, as well as expansion of economic values, as reasons for investing in space exploration.

Session 2 Summary: Promotion of International Space Exploration

Session 2 was moderated by **Ichiro Fujisaki, Chair of MEXT's Subcommittee on ISS and International Space Exploration and former ambassador to the US**, and **Roberto Battiston, President of the Italian Space Agency (ASI)**.

Fujisaki talked about four preconditions for discussion. First was that space exploration will continue to develop, and the question should be only when and how. Second, there are new partners, emerging countries, as well as the private sector. Third, a roadmap is emerging from a lunar orbit platform to the Moon and to Mars, including human missions. Fourth, no one country should be willing to or can really explore on its own, so international cooperation is indispensable.

Battiston followed by referring to current international frameworks for discussion such as the UNCOPUOS (United Nations Committee on the Peaceful Usage of Outer Space) and the ISECG (International Space Exploration Coordination Group). He expressed appreciation for ISS activities and highlighted the importance of international cooperation for challenging and financially demanding endeavors. He said that the key to sustainability is to focus on a common goal and that now is the moment to demonstrate that man can live in deep space.

After his statement, the moderators asked six panelists to make remarks, followed by a Q&A session.



Robert Lightfoot, Acting Administrator of NASA, highlighted the importance of international cooperation and proposed leading a coalition of international and commercial partners to develop the Gateway, building on the success of the ISS. He also invited new international participation on the ISS. These activities are part of NASA's Exploration Campaign to lead an innovative program of exploration with commercial and international partners to enable human expansion across the solar system and bring back to Earth new knowledge and opportunities.

Jean-Yves Le Gall, Chairman of the French Space Agency (CNES), stated that participation in international space exploration will strengthen the political impetus to support a project from beginning to completion. He also asserted that establishing the right mechanisms for international partnerships and sharing a commonly agreed vision at the political level will be essential for sustainable space exploration.

Concerning frameworks of cooperation, **Juan Maria Vazquez, Secretary General of Spain's Science & Innovation, Ministry of Economy, Industry and Competitiveness**, underlined the importance of bodies like the ISEF, the UNCOPUOS and the ISECG as opportunities for regular exchange and for the decision-making processes that will help to globalize exploration. He said that Spain will take on the very important task of organizing the next ESA ministerial meeting in 2019.

Naoki Okumura, President of JAXA, underlined the importance of common rules and understanding in undertaking ambitious programs. Stating the experience of ISS cooperation and the willingness to promote international space exploration in priority areas such as technologies for habitation in space, he noted the importance of including non-space sectors to stimulate innovation and economic expansion. It is important to strike a balance between cooperation and competition, he added.

Wolfgang Scheremet, Director General for Industrial Policy in Germany's Ministry of Economic Affairs and Energy, highlighted the importance of diversity in the programs of different countries to foster international cooperation, as more new players step up. He underlined the important role of the ESA in European cooperation on exploration.

From the viewpoint of a country that is extending its capabilities for the future, **Thomas Djamaluddin, Chairman of Indonesia's National Institute of Aeronautics and Space (LAPAN)**, stressed that developing countries can participate in international space exploration under the cooperation and partnership with space-faring countries. He related Indonesia's experience with international cooperation on the ISS.



There were remarks from the floor by attendees from **Thailand, Nigeria, Norway and India**, who introduced their national and international activities and expressed confidence in international space exploration as opportunities to participate and strengthen their capacities.

Attendees confirmed that space exploration will be strengthened through international collaboration and can benefit from a synergy based on shared visions and goals. The participants heralded the new landscape of modern exploration characterized by significant contributors from both the public and private sectors and among accomplished space-faring nations as well as those countries just beginning to explore and exploit outer space. They emphasized that diversification of nations, players, users, needs, implementation methods and applications will be a key to provide an eco-system to progress international space exploration. Attendees stressed that most participants desire to work together to figure out innovative ways to open the cooperation to various programs beyond nations to private industry.

Information Session

Following a performance of a Japanese drum called a *wadaiko* by a group of high-school students, the winning team of Y-ISEF (ISEF for Young Professionals) made a presentation. Y-ISEF was held on 1 March to stimulate great ideas and the interest of the younger generation. Some 80 young professionals participated in an intensive group workshop.

A summary of I-ISEF (ISEF for Industry) was presented by **Atsushi Sunami, Vice President of the National Graduate Institute for Policy Studies**. The event was held on 2 March to share the possibilities and challenges of private sector involvement in space exploration. More than 500 people from hundreds of Japanese and overseas companies participated. The discussions of I-ISEF extended from conditions, innovation, and space exploration in 2030 to the economic benefits of lunar and asteroid development; the prospects for space exploration and other industries; and policy measures for expansion of businesses

A presentation by **Simonetta Di Pippo, Director of the United Nations Office of Outer Space Affairs (UNOOSA)** followed concerning the UNISPACE+50 Summit and Space 2030. She said that a high-level segment of the 61st session of COPUOS, named *UNISPACE+50*, would be held in Vienna in June. She explained that an action team for “*global partnership in space exploration and innovation*” as part of the preparations for UNISPACE+50 will integrate the outcome of this ISEF2 in its report.



Session 3 Summary: Implementation of human and robotic space exploration programs and projects

Session 3 was led by **William H. Gerstenmaier, NASA Associate Administrator for Human Exploration and Operations**, and **Johann-Dietrich Woener, Director General of the European Space Agency (ESA)**.

Gerstenmaier, began with an introduction to the third edition of the Global Exploration Roadmap (GER) by the ISECG as an illustration of how space agencies are moving forward with space exploration and introduced the Gateway for inviting cooperation. He announced that on 1 March the ISS Partners had released a draft of the inter-operability standards of deep space technologies for public comment. He highlighted that such standards will pave the way for allowing both public and private sectors to work together for moving into deep space.

Woener stated that there was a paradigm shift in how to conduct space activities today due to the different motivations, actors, roles and technologies, and that ESA is promoting public-private partnerships. He stated that the Moon is the next target, and that free and open access to the Moon should be secured. He said that discussion about cooperation on the Gateway is ongoing and highlighted the chain of innovation, from fascination to inspiration and motivation, as values for space exploration.

After his statement, he asked six panelists to make remarks, and a Q&A session followed.

A couple of panelists touched upon Moon exploration.

Sergey Krikalev, Cosmonaut and Executive Director for Human Spaceflight Programs of Roscosmos, stated that Moon exploration is the main direction of the next step for human space flight programs in Russia. He said that Russia will proceed to moon exploration through international cooperation and also stated that the ISS is a great example of international cooperation and the consolidation of global forces.

Cheol Ho Lim, President of the Korea Aerospace Research Institute (KARI), introduced Korea's focus on robotic lunar exploration, which is to be launched in 2020 in cooperation with NASA. He stated that Korea is willing to expand its participation in international projects and will continue to build its space capabilities.

Several panelists talked about open cooperation.

Yanhua Wu, Vice Administrator of the Chinese National Space Administration (CNSA), introduced China's space activities such as lunar exploration and a *China Space Station*. He noted that China will adhere to the principle of space exploration for peaceful



use of space and will always welcome the partnership of other countries based on equality and mutual benefit, as well as on openness and inclusiveness.

Mauro Dell' Ambrogio, Switzerland's State Secretary of Education, Research and Innovation, encouraged an exploration framework open to all interested countries and said that the cooperation should be facilitated by inter-operability of the system and standards, based on the respective expertise of all actors. He noted that participation in the ESA had enabled Switzerland, a small European country, to focus on specific technologies such as highly accurate atomic clocks and optical communications.

Lionel Suchet, Chief Operating Officer of the French Space Agency (CNES), said that space exploration comprises multiple missions and projects both robotic and human, small and large, to various destinations, involving many institutional and private players, and that the contributors to each project may differ depending on priorities and expertise.

Yoshimasa Hayashi, Japan's Minister of Education, Culture, Sports, Science and Technology, underlined the necessity of the principles for international space exploration and noted peaceful purposes and benefits to humanity, implementability, cooperation with academia and private sector. He introduced Japan's policy direction, which is to advance the study of the necessary technologies and a framework for international cooperation, taking into account a U.S.-conceived cis-lunar station and lunar-surface exploration.

Remarks also came from the floor by attendees from **Pakistan, Kazakhstan and Ukraine**, who introduced their national and international activities and expressed confidence in international space exploration as opportunities to participate and strengthen their capacities.

Throughout the session, attendees affirmed that extending exploration deeper into the solar system -- from low-Earth orbit (LEO) through the Moon to Mars and beyond -- is a goal widely shared by the international community. Attendees from several individual countries introduced their plans.

Woener closed the session by proposing to name the principles for international space exploration as the *Tokyo Principles for International Space Exploration*.



Closing Session

Following a live call to ISS astronauts: JAXA's **Norishige Kanai**, NASA's **Scott Tingle**, and cosmonaut **Anton Shkaplerov**, with **Yoshimasa Hayashi**, **Masaji Matsuyama**, **Minister of State for Space Policy**, and three Y-ISEF participants, the closing session was commenced.

Wakata introduced three outcome documents from the ISEF 2 – the *Joint Statement*, the *ISEF Terms of Reference*, and the *Principles for International Space Exploration*. The last two had been modified slightly from when they distributed at the start of the forum.

The modified parts are as follows:

- ISEF Terms of Reference: “governments” in [Revisions] were modified to “governments and international / inter-governmental organizations” and “participating countries” in [Effectivity] to “participating countries and international/inter-governmental organizations.”
- Principles for International Space Exploration: “Protecting outer space and celestial bodies” in the paragraph of “sustaining outer space environment” was modified to “Protecting outer space including celestial bodies.”

Following the readout of the outcome documents by **Wakata**, **Hayashi**, as the **Chair of the ISEF 2**, proposed naming the principles the *Tokyo Principles for International Space Exploration* as suggested during Session 3 and proposed approving the three documents. Both were accepted with applause from the participants.

Pierre Delsaux, **Deputy Director General of the EC's International Market, Industry, Entrepreneurship and SMEs**, and **Roberto Battiston**, **President of the ASI**, announced that the next ISEF will be co-chaired by Italy together with another major European country by 2021.

The forum was concluded with closing remarks by **Matsuyama** and **Hayashi**.

3 March 2018

Tokyo, Japan

List of Participants, ISEF2 on 3 March, 2018 in Tokyo

Attachment-1

| Country/Organization | Category | Title | First Name | Last Name | Organization |
|----------------------|--------------------|-------|----------------|----------------|---|
| Argentine | Head of Delegation | Ms. | Marcela | Barone | Embassy of Argentina in Japan |
| Bangladesh | Head of Delegation | H.E. | Rabab | Fatima | Ambassador to Japan |
| Bangladesh | Delegation Member | Dr. | Ziaul | Abedin | Embassy of Bangladesh |
| Brazil | Head of Delegation | Mr. | Fernando | Perdigao | Embassy of Brazil in Tokyo |
| Canada | Head of Delegation | Mr. | Sylvain | Laporte | President of Canadian Space Agency (CSA) |
| Canada | Delegation Member | Mr. | Alain | Ouellet | Canadian Space Agency (CSA) |
| Canada | Delegation Member | Mr. | Gilles | Leclerc | Canadian Space Agency (CSA) |
| Canada | Delegation Member | Ms. | Mary | Preville | Canadian Space Agency (CSA) |
| China | Head of Delegation | H.E. | Yanhua | Wu | Vice Administrator of China National Space Administration (CNSA) |
| China | Embassy Staff | Mr. | Ruan | Xiangping | Chinese embassy |
| China | Embassy Staff | Mr. | Bai | Yanqiu | Chinese embassy |
| China | Delegation Member | Dr. | Yong | Gan | China National Space Administration (CNSA) |
| China | Delegation Member | Ms. | Qi | Yu | China National Space Administration (CNSA) |
| China | Delegation Member | Mr. | Jizhong | Liu | China National Space Administration (CNSA) |
| China | Delegation Member | Ms. | Wuhong | Shi | Ministry of Foreign Affairs |
| China | Delegation Member | Mr. | Le | Liu | China National Space Administration (CNSA) |
| Colombia | Head of Delegation | H.E. | Gabriel | Duque | Ambassador to Japan |
| Colombia | Delegation Member | Mr. | jaime | pacheco aranda | Embassy of Colombia |
| Czech Republic | Head of Delegation | H.E. | Tomas | Dub | Ambassador to Japan |
| Czech Republic | Delegation Member | Mr. | Vaclav | Kobera | Ministry of Transport |
| Czech Republic | Delegation Member | Mr. | Petr | Bares | Czech Space Alliance |
| Denmark | Head of Delegation | H.E. | Freddy | Svane | Ambassador to Japan |
| Denmark | Delegation Member | Ms. | Cecilie | Tornoe | Ministry of Higher Education and Science |
| Denmark | Delegation Member | Ms. | Akiko | Kamigori | Royal Danish Embassy |
| ESA | Head of Delegation | Prof. | Joahn-Dietrich | Woerner | Director General, European Space Agency (ESA) |
| ESA | Delegation Member | Dr. | Bernhard | Hufenbach | European Space Agency (ESA) / ESTEC |
| ESA | Delegation Member | Dr. | David | Parker | European Space Agency (ESA) |
| ESA | Delegation Member | Dr. | Sylvie | Espinasse | European Space Agency (ESA) / ESTEC |
| ESA | Delegation Member | Dr. | Thomas | Weissenberg | European Space Agency (ESA) |
| ESA | Delegation Member | Mr. | Jean-Charles | Bigot | European Space Agency (ESA) |
| ESA | Delegation Member | Mr. | Frederic | Nordlund | European Space Agency (ESA) |
| ESA | Delegation Member | Dr. | Chiara | Manfletti | European Space Agency (ESA) |
| EU | Head of Delegation | Mr. | Pierre | Delsaux | Deputy Director-General for Internal Market, Industry, Entrepreneurship and SMEs, European Commission |
| EU | Accompanying Staff | Ms. | Saori | Nakasone | Delegation of the European Union to Japan |

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|----------------------|--------------------|-------|----------------|---------------|---|
| EU | Delegation Member | Mr. | Francois | Rivasseau | European External Action Service |
| EU | Delegation Member | Mr. | Didier | Schmitt | European External Action Service |
| EU | Delegation Member | Mr. | Sandro | D'Angelo | European Commission |
| EU | Delegation Member | Mr. | Gergely | Sulyok | Delegation of the European Union |
| France | Head of Delegation | Dr. | Jean-Yves | Le Gall | President of French Space Agency (CNES) |
| France | Delegation Member | Mr. | Bernard | Luciani | CNES / French embassy in Japan |
| France | Delegation Member | Mr. | Lionel | Suchet | French Space Agency (CNES) |
| France | Delegation Member | Dr. | Pascale | Ultre-Guerard | French Space Agency (CNES) |
| France | Delegation Member | Mr. | Jean | Blouvac | French Space Agency (CNES) |
| Germany | Head of Delegation | Dr. | Wolfgang | Scheremet | Directore General for Industrial Policy in the Federal Ministry of Economic Affairs and Energy |
| Germany | Delegation Member | Mr. | Holger | Schlienkamp | Federal Ministry of Economic Affairs and Energy |
| Germany | Delegation Member | Dr. | Karl | Nagel | Federal Ministry of Economic Affairs and Energy |
| Germany | Delegation Member | Mr. | Thomas | Koch | Federal Ministry of Economic Affairs and Energy |
| Germany | Delegation Member | Prof. | Pascale | Ehrenfreund | CEO of German Aerospace Center (DLR) |
| Germany | Delegation Member | Dr. | Walther | Pelzer | German Aerospace Center (DLR) |
| Germany | Delegation Member | Mr. | Marco | Schuldt | Embassy of the Federal Republic of Germany Tokyo |
| Germany | Delegation Member | Dr. | Peter | Stubbe | German Aerospace Center (DLR) |
| Germany | Delegation Member | Dr. | Niklas | Reinke | German Aerospace Center (DLR) |
| Greece | Head of Delegation | Mr. | Vasileios | Maglaras | General Secretary for Telecommunications & Post, Ministry of Digital Policy, Telecommunications & Media |
| Greece | Delegation Member | Mr. | Athanasios | Potsis | Hellenic Association of Space Industry |
| Greece | Delegation Member | Mr. | Georgios | Synnefakis | Ministry of Digital Policy, Telecommunications & Media |
| Greece | Delegation Member | Mr. | Dionyssis | Protopapas | Embassy of Greece |
| Greece | Delegation Member | Ms. | Eirini | Kama | Embassy of Greece |
| Greece | Delegation Member | Dr. | Leonidas | Karapiperis | Delegation of the European Union to Japan |
| India | Head of Delegation | Dr. | P. | Diwakar | Scientific Secretary of Indian Space Research Organization (ISRO) |
| India | Delegation Member | Dr. | Purnima | Rupal | Embassy of India in Japan |
| Indonesia | Head of Delegation | Prof. | Thomas | Djamaluddin | Chairman of National Institute of Aeronautics and Space (LAPAN) |
| Indonesia | Delegation Member | Mr. | Christianus | Dewanto | National Institute of Aeronautics and Space (LAPAN) |
| Italy | Head of Delegation | H.E. | Giorgio | Starace | Ambassador to Japan |
| Italy | Delegation Member | Prof. | Roberto | Battiston | President of Italian Space Agency (ASI) |
| Italy | Delegation Member | Prof. | Gabriella | Arrigo | Italian Space Agency (ASI) |
| Italy | Delegation Member | Dr. | Maria Cristina | Falvella | Italian Space Agency (ASI) |
| Italy | Delegation Member | Dr. | Gabriele | Mascetti | Italian Space Agency (ASI) |

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|----------------------|--------------------|-------|------------|---------------|---|
| Italy | Delegation Member | Prof. | Enrico | Traversa | Embassy of Italy |
| Japan | Head of Delegation | H.E. | Yoshimasa | Hayashi | Minister of Education, Culture, Sports, Science and Technology |
| Japan | Delegation Member | H.E. | Masaji | Matsuyama | Minister of State for Space Policy |
| Japan | Delegation Member | Mr. | Hideki | Niizuma | Parliamentary Vice-Minister of Education, Culture, Sports, Science and Technology |
| Japan | Delegation Member | Mr. | Koji | Saeki | Director General, Research and Development Bureau, Ministry of Education, Culture, Sports, Science and Technology |
| Japan | Delegation Member | Mr. | Shuzo | Takada | Director General, National Space Policy Secretariat, Cabinet Office |
| Japan | Delegation Member | Ms. | Mami | Oyama | Deputy Director General, Research and Development Bureau, Ministry of Education, Culture, Sports, Science and Technology |
| Japan | Delegation Member | Mr. | Yasuhiro | Yukimatsu | Director General for International Cooperation, National Space Policy Secretariat, Cabinet Office |
| Japan | Delegation Member | Mr. | Kansuke | Nagaoka | Deputy Assistant Minister, Foreign Policy Bureau, Ministry of Foreign Affairs / Ambassador in charge of Policy Planning and International Security Policy |
| Japan | Delegation Member | Mr. | Ichiro | Fujisaki | Chair of Subcommittee on ISS and International Space Exploration of MEXT / Former Japanese Ambassador to the U.S. |
| Japan | Delegation Member | Dr. | Naoki | Okumura | President of Japan Aerospace Agency (JAXA) |
| Japan | Delegation Member | Dr. | Koichi | Wakata | JAXA ISS Program Manager / JAXA Astronaut |
| Kazakhstan | Head of Delegation | Mr. | Marat | Nurguzhin | Vice Minister of Defense and Aerospace Industry |
| Kazakhstan | Delegation Member | Mr. | Yergalym | Nursalimuly | Embassy of the Republic of Kazakhstan |
| Kazakhstan | Delegation Member | Ms. | Amanova | Nurgul | Ministry of Defense and Aerospace Industry |
| Kazakhstan | Delegation Member | Mr. | Aimbetov | Aidyn | Kazakhstan Gharysh Sapary NC JSC |
| Kazakhstan | Delegation Member | Mr. | Ruslanuly | Aibergen | Gharam LTD |
| Kenya | Head of Delegation | H.E. | Solomon | Maina | Ambassador to Japan |
| Luxembourg | Head of Delegation | H.E. | Etienne | Schneider | Deputy Prime Minister and Minister of the Economy |
| Luxembourg | Delegation Member | Mr. | Thierry | Quintus | Ministry of the Economy |
| Luxembourg | Delegation Member | Ms. | Dovile | Matuleviciute | Ministry of the Economy |
| Luxembourg | Delegation Member | Dr. | Marc | Serres | Ministry of the Economy |
| Luxembourg | Delegation Member | Dr. | Mathias | Link | Ministry of the Economy |
| Luxembourg | Delegation Member | Mr. | Mario | Grotz | Ministry of the Economy |
| Luxembourg | Delegation Member | H.E. | Beatrice | Kirsch | Ambassador to Japan |
| Luxembourg | Delegation Member | Mr. | Christian | Muller | Embassy of Luxembourg to Japan |
| Luxembourg | Delegation Member | Ms. | Yuriko | Matsuno | Luxembourg Trade and Investment Office - Tokyo |
| Luxembourg | Delegation Member | Mr. | Daniel | Cruz | Ministry of the Economy |
| Malaysia | Head of Delegation | Dr. | Nordin | Ahmad | Director General of National Space Agency (ANGKASA) |
| Netherlands | Head of Delegation | Mr. | Eelco | Van der Eijk | Director of Space Policy, Ministry of Economic Affairs and Climate Policy |

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|--------------------------|------------------------|-------|-------------|---------------------|---|
| New Zealand | Head of Delegation | Ms. | Katherine | MacNeill | Manager for International Strategy, New Zealand Space Agency |
| New Zealand | Delegation Member | Mr. | Joe | McKay | New Zealand Space Agency |
| Nigeria | Head of Delegation | Prof. | Seidu | Mohammed | Director General of National Space Research and Development Agency (NASRDA) |
| Nigeria | Delegation Member | Ms. | Chinwe | NKEM-NWAIGWE | Embassy of Nigeria |
| Norway | Head of Delegation | Dr. | Bo | Andersen | Director General of Norwegian Space Centre |
| Norway | Embassy representative | H.E. | Erling | Rimestad | Ambassador to Japan |
| Norway | Delegation Member | Ms. | Marianne | Tantillo | Norwegian Space Centre |
| Pakistan | Head of Delegation | Mr. | Ayaz | Aziz | Pakistan Space and Upper Atmosphere Research Commission (SUPARCO) |
| Philippines | Head of Delegation | Ms. | Cassandra | Sawadjaan | Embassy of the Republic of the Philippines |
| Philippines | Delegation Member | Ms. | Diane Merce | Bartolome | Embassy of the Republic of the Philippines |
| Poland | Head of Delegation | Ms. | Beata | Mikolajek-Zielinska | Chief Expert, Department of Innovations and Development, Ministry of Science and Higher Education |
| Poland | Delegation Member | Dr. | Agnieszka | Kuczala | Ministry of Science and Higher Education |
| Poland | Delegation Member | Ms. | Malgorzata | Szmidt | Embassy of the Republic of Poland |
| Portugal | Head of Delegation | Mr. | Mario | Amaral | Portuguese Foundation for Science and Technology (FCT), Minister of Science Technology and Higher Education |
| Portugal | Delegation Member | Ms. | Ana | Reis | Portuguese Foundation for Science and Technology (FCT), Minister of Science Technology and Higher Education |
| Republic of Korea | Head of Delegation | Dr. | Wonho | Choi | Director General, Space, Nuclear and Big Science Policy Bureau, Ministry of Science and ICT |
| Republic of Korea | Delegation Member | Ms. | Yun | Jung | Ministry of Science and ICT |
| Republic of Korea | Delegation Member | Dr. | Cheol Ho | LIM | President of Korea Aerospace Research Institute (KARI) |
| Republic of Korea | Delegation Member | Dr. | Chin Young | Hwang | Korea Aerospace Research Institute (KARI) |
| Republic of Korea | Delegation Member | Dr. | Gi-Hyuk | Choi | Korea Aerospace Research Institute (KARI) |
| Republic of Korea | Delegation Member | Mr. | Dong Young | Rew | Korea Aerospace Research Institute (KARI) |
| Republic of Korea | Delegation Member | Ms. | Eun Jung | Lee | Korea Aerospace Research Institute (KARI) |
| Republic of Korea | Delegation Member | Mr. | Sung Chan | Ahn | Korea Aerospace Research Institute (KARI) |
| Republic of South Africa | Head of Delegation | Ms. | Eudy | Mabuza | Ministry Councillor, Science and Technology, The Embassy of the Republic of South Africa in Japan |
| Romania | Head of Delegation | Dr. | Marius-Ioan | Piso | President and CEO of Romanian Space Agency (ROSA) |
| Romania | Delegation Member | H.E. | Tatiana | IOSIPER | Ambassador to Japan |
| Romania | Delegation Member | Ms. | Oana | Neagu | Romanian Space Agency (ROSA) |
| Russia | Head of Delegation | Mr. | Igor | Komarov | Director General of State Space Corporation "Roscosmos" |
| Russia | Delegation Member | Ms. | Anna | Prokopchik | State Space Corporation "Roscosmos" |

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| Country/Organization | Category | Title | First Name | Last Name | Organization |
|----------------------|--------------------|-------|---------------|----------------|--|
| Russia | Delegation Member | Mr. | Vasily | Gudnov | State Space Corporation "Roscosmos" |
| Russia | Delegation Member | Ms. | Tatiana | Tishchenko | State Space Corporation "Roscosmos" |
| Russia | Delegation Member | Mr. | Sergey | Saveliev | State Space Corporation "Roscosmos" |
| Russia | Delegation Member | Mr. | Alexey | Lushin | State Space Corporation "Roscosmos" |
| Russia | Delegation Member | Mr. | Sergey | Krikalev | State Space Corporation "Roscosmos" |
| Russia | Delegation Member | Mr. | Igor | Burenkov | State Space Corporation "Roscosmos" |
| Russia | Delegation Member | Mr. | Andrey | Golyanovskiy | State Space Corporation "Roscosmos" |
| Russia | Delegation Member | Mr. | Andrey | Dolgikh | Embassy of Russia in Japan |
| Russia | Delegation Member | Ms. | Ekaterina | Ranyuk | State Space Corporation "Roscosmos" |
| Russia | Delegation Member | | Andrey | Kardash | |
| Saudi Arabia | Head of Delegation | H.H. | Turki | Al Saud | President of King Abdulaziz City for Science and Technology (KACST) |
| Saudi Arabia | Delegation Member | Mr. | Jilowey | Alqahtani | King Abdulaziz City for Science and Technology (KACST) |
| Spain | Head of Delegation | Mr. | Juan Maria | Vazquez Rojas | Secretary General of Science and Innovation, Ministry of Economy, Industry and Competitiveness and President of CDTI (Center for the Development of Industrial Technology) |
| Spain | Delegation Member | Mr. | Jorge | Lomba Ferreras | CDTI (Center for the Development of Industrial Technology) |
| Spain | Delegation Member | Mr. | Juan Carlos | Cortes Pulido | CDTI (Center for the Development of Industrial Technology) |
| Spain | Delegation Member | Mr. | Akihisa | Dambara | CDTI (Center for the Development of Industrial Technology) |
| Sweden | Head of Delegation | Dr. | Olle | Norberg | Director General of Swedish National Space Agency |
| Switzerland | Head of Delegation | H.E. | Mauro | Dell'Ambrogio | State Secretary for Education, Research and Innovation |
| Switzerland | Delegation Member | Ms. | Micol | Venturino | State Secretariat for Education, Research and Innovation SERI |
| Switzerland | Delegation Member | Mr. | Mauro | Moruzzi | State Secretariat for Education, Research and Innovation SERI |
| Switzerland | Delegation Member | Dr. | Oliver | Botta | State Secretariat for Education, Research and Innovation SERI |
| Switzerland | Delegation Member | Dr. | Renato | Krpoun | Head of Swiss Space Office SSO/SERI |
| Switzerland | Delegation Member | Dr. | Thomas | Meyer | Embassy of Switzerland in Japan |
| Switzerland | Delegation Member | H.E. | Jean-Francois | Paroz | Ambassador to Japan |
| Thailand | Head of Delegation | Dr. | Anond | Snidvongs | Executive Director of Geo-Informatics and Space Technology Development Agency (GISTDA) |
| Thailand | Delegation Member | Dr. | Ammarin | Pimnoo | Geo-Informatics and Space Technology Development Agency (GISTDA) |
| Turkey | Head of Delegation | Mr. | Ali | Baygeldi | Head of Department, Satellite Design and Integration, Ministry of Transport Maritime Affairs and Communications |
| Turkey | Delegation Member | Ms. | Yasar | Isik | Ministry of Transport Maritime Affairs and Communications |
| Turkey | Delegation Member | Mr. | Ertugrul | Karatay | Ministry of Transport Maritime Affairs and Communications |
| Ukraine | Head of Delegation | Mr. | Pavlo | Degtiarenko | Chairman of State Space Agency of Ukraine |
| Ukraine | Delegation Member | Dr. | Ihor | Kharchenko | Ambassador to Japan |

List of Participants, ISEF2 on 3 March, 2018 in Tokyo

Attachment-1

| Country/Organization | Category | Title | First Name | Last Name | Organization |
|--------------------------|--------------------|-------|-------------|--------------|---|
| Ukraine | Delegation Member | Mr. | Yuriy | Torlak | State Space Agency of Ukraine |
| Ukraine | Delegation Member | Ms. | Mariia | Terekhova | Yuzhnoye State Design Office |
| Ukraine | Delegation Member | Mr. | Gennadiy | Osinovyy | Yuzhnoye State Design Office |
| Ukraine | Delegation Member | Mr. | Yevhen | Pliaskin | Embassy of Ukraine in Japan |
| United Arab Emirates | Head of Delegation | H.E. | Ahmad | Belhoul | Minister of State for Higher Education and Chairman of UAE Space Agency |
| United Arab Emirates | Delegation Member | H.E. | Mohammed | Al AlAhbabi | UAE Space Agency |
| United Arab Emirates | Delegation Member | Mr. | Hasan | Alshehhi | UAE Space Agency |
| United Arab Emirates | Delegation Member | Mr. | Khaled | AlHashmi | UAE Space Agency |
| United Arab Emirates | Delegation Member | H.E. | Yousuf | Alshaibani | Mohammed bin Rashid Space Center |
| United Arab Emirates | Delegation Member | Mr. | SALEM | ALMARRI | Mohammed bin Rashid Space Centre |
| United Arab Emirates | Delegation Member | H.E. | Khaled | ALAMERI | Ambassador to Japan |
| United Arab Emirates | Delegation Member | Mr. | SAEED | ALFALASI | Ministry of Education |
| United Kingdom | Head of Delegation | Dr. | Alice | Bunn | International Director, UK Space Agency |
| United Kingdom | Delegation Member | Mr. | Chris | Lee | UK Space Agency |
| United States of America | Head of Delegation | H.E. | William | Hagerty IV | Ambassador to Japan |
| United States of America | Delegation Member | Prof. | Scott | Pace | Executive Secretary of National Space Council |
| United States of America | Delegation Member | Mr. | Jared | Stout | The White House |
| United States of America | Delegation Member | Dr. | Jonathan | Margolis | Deputy Assistant Secretary, U.S. Department of State |
| United States of America | Delegation Member | Mr. | Kenneth | Hodgkins | U.S. Department of State |
| United States of America | Delegation Member | Mr. | Christopher | Cannizzaro | U.S. Department of State |
| United States of America | Delegation Member | Mr. | Robert | Lightfoot | Acting Administrator of NASA |
| United States of America | Delegation Member | Mr. | William | Gerstenmaier | NASA |
| United States of America | Delegation Member | Mr. | Al | Condes | NASA |
| United States of America | Delegation Member | Mr. | Tom | Cremins | NASA |
| United States of America | Delegation Member | Ms. | Meredith | McKay | NASA |
| United States of America | Delegation Member | Mr. | Patrick | Finley | NASA |
| United States of America | Delegation Member | Mr. | Grey | Hautaluoma | NASA |
| United States of America | Delegation Member | Mr. | Garvey | McIntosh | NASA |
| United States of America | Delegation Member | Ms. | Sumiko | Mito | NASA |
| United States of America | Delegation Member | Mr. | Jeremy | Edwards | U.S. Embassy, Tokyo |
| United States of America | Delegation Member | Ms. | Mikako | Sano | U.S. Embassy Tokyo |
| United States of America | Delegation Member | Ms. | Akiko | Chiba | U.S. Embassy Tokyo |
| UNOOSA | Head of Delegation | Ms. | Simonetta | Di Pippo | Director of United Nations Office for Outer Space Affairs |

List of Participants, ISEF2 on 3 March, 2018 in Tokyo

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| Country/Organization | Category | Title | First Name | Last Name | Organization |
|----------------------|--------------------|-------|------------|-----------|--|
| Viet Nam | Head of Delegation | Dr. | Tung | Ly | Deputy Director-General, Department of High Technologies, Ministry of Science and Technology |
| Viet Nam | Delegation Member | Dr. | Bui | Khoi | Vietnam Embassy in Japan |