Press Conference
President of JST

January 22, 2020

Japan Science and Technology Agency

Highlights of FY2020 Budget No.1

As a comprehensive institution for promoting science and technology innovation, we aim to further strengthen the science and technology infrastructure by consistently supporting R&D from basic research to practical applications. In FY2020, based on the Fifth Science and Technology Basic Plan by the Cabinet Office, National Integrated Innovation Strategy 2019, and JST's own reform plan: Hamaguchi Plan, etc., we will aggressively respond to our changing society as a network type research institute with promoting high risk and high impact R&D.

Highlights of the Budget Request for FY2020 (FY2019 general account)

	FY2020	(FY2019)
Government Expenditures	**102.1 billion**	**(103.7 billion)**
Government funding for operations	100.3 billion	(100.5 billion)
Government subsidies for facilities*	0.2 billion	(1.6 billion)
*Included temporary and special expenditures		
ImPACT Program (Moonshots* R&D)	1.6 billion	(1.6 billion)
Emerging Research Program	0.06 billion	(New)

(Unit: billion yen)

Highlights of FY2020 Budget No.2

Each budget is a part of/included in the FY2020 Budget

1. Promoting high risk and high impact R&D

- JST-Mirai Program ⇒ 7.7 billion (6.5 billion)

JST has set goals focusing on clear targets which realize economic and social impact (high impact) and challenge technological difficulties (high risk). Inducing private investments, we implement R&D toward “Proof of Concept (POC)”: the stage industry can decide whether they could make a business successful, taking advantage of outstanding outcomes of research programs such as the JST Strategic Basic Research Program and Grants-in-Aid for Scientific Research (KAKEN).

2. Enhancing development of new and fusion area and strengthening funding for young researchers

- Strategic Creative Research (Creation of New Seeds)

⇒41.8 billion at maximum (42.4 billion)

Note: 0.5 billion yen increase from the previous year excluding a natural decrease due to integration of projects.

JST promotes R&D toward creation of new technologies which contribute to resolving Japan’s critical issues. For that purpose, we take into account social and economic needs and construct research systems for a fixed period beyond the framework of organization and fields as a network-type institute under policies set by the Japanese government (MEXT).

(Unit: billion yen)

Highlights of FY2020 Budget No.2

Each budget is a part of/included in the FY2020 Budget

3. Promoting academia, industry, and government and building co-creation and forming an open innovation platform

- Supporting co-creating place information infrastructure ⇒ 13.8 billion (12.6 billion)

JST promotes academia, industry and government co-creation responding to various activity styles and entities such as private companies, universities, startups, and local governments by forming an open innovation platform that works with swift action and flexibility. We promotes R&D to create value utilizing characteristics of policy issues and strengths, and provides a package of system reforms including optimal team formation and management system construction.

4. Creating university-originated start-ups

- Program for Creating Start-ups from Advanced Research and Technology (START)
  ⇒ 1.9 billion (1.7 billion)

JST creates university-originated ventures with growing potential by combining public funds and know-how of private businesses etc. at the start-up stage of university-originated ventures. We aim at commercialization of technological seeds of high-risk but high-potential with a clear vision of markets or goals through constructing strategies on business and intellectual properties.

(Unit: billion yen)

FY2019 The Supplementary Budget

■ Ensuring public safety and security and investing in the future, etc.

JST ⇒ Total 51.3 billion

1. Accelerating efforts to improve research capabilities ⇒51.1 billion

- Emerging Research Program ⇒ 50.0 billion

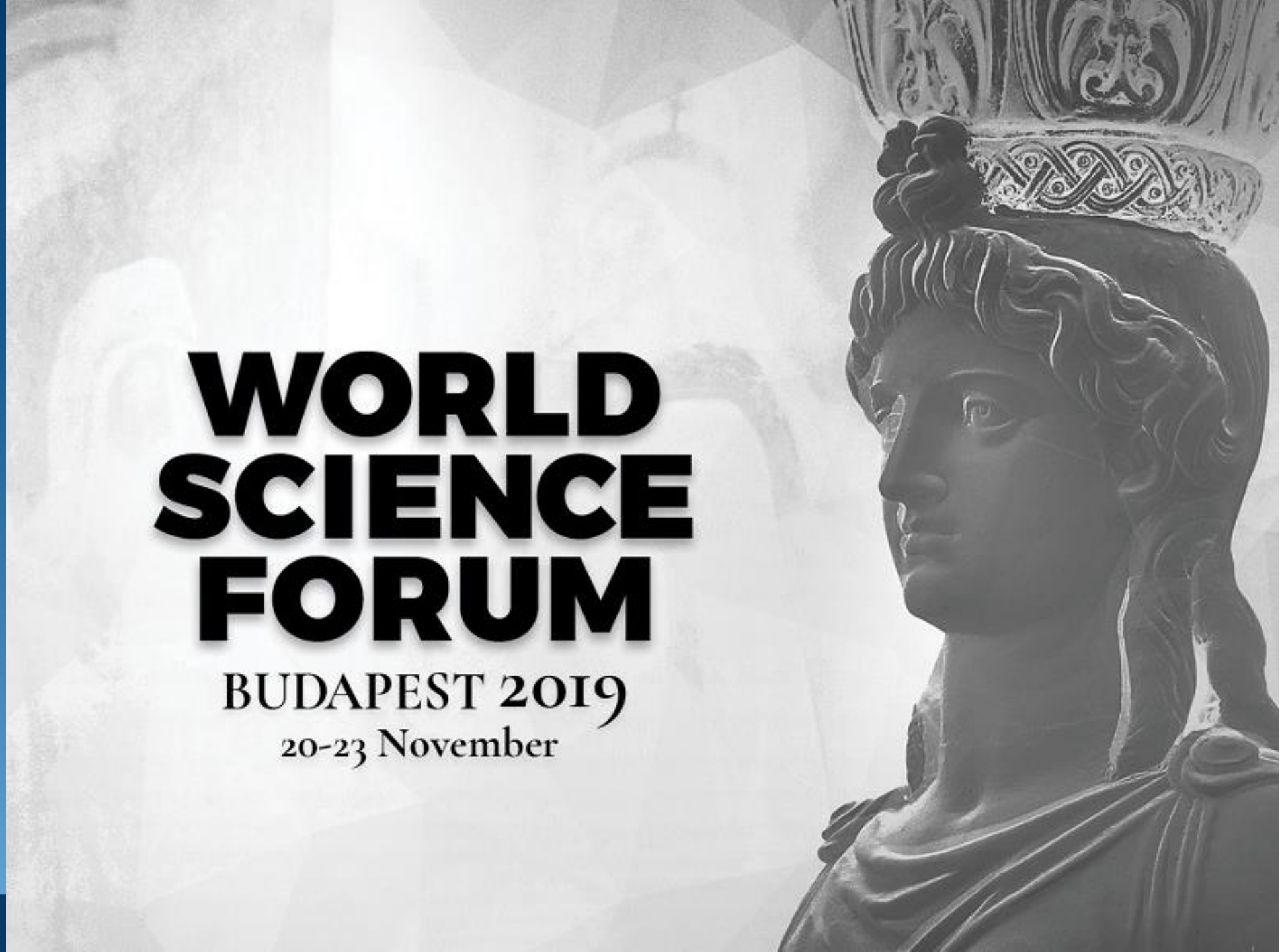
Promoting "emergent research," which aims to create seeds that lead to disruptive innovation through diversity and fusion, along with the formation of an appropriate research environment suitable for its execution.
Emergent Research Promotion Fund is newly created.

- Supporting SDGs ⇒ 1.1 billion

Promoting social implementation of research results and operating globally by conducting demonstrations at the fields to achieve the SDGs in Asian and African countries.

2. Strengthening disaster prevention, mitigation and national resilience of national research institutes ⇒ 0.2billion

▪ Facility maintenances are planned at Miraikan and the foreign researchers residence.


WORLD
SCIENCE
FORUM
BUDAPEST 2019
20-23 November

What is the World Science Forum?

- WSF is a meeting of top scientists, science policy-makers, representatives of science institutions, governments and industry, and other stakeholders across the world to discuss the relationship between science and society and various issues facing science. WSF is a follow-up conference series that was inspired by the success of the interdisciplinary meeting held in Budapest, Hungary in 1999, convened by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the International Council for Science (ICSU), in co-operation with other partners.
- WSF had been held biennially since 2003 in Budapest. From the sixth forum, Budapest and a third country take turns to hold the forum every second occasions. Rio de Janeiro in 2013, Budapest 2015, Jordan in 2017, and Budapest 2019.
- **Host：Hungarian Academy of Sciences**
- **Partner Organization:**

  United Nations Educational, Scientific and Cultural Organization (**UNESCO**), International Science Council (**ISC**), American Association for the Advancement of Science (**AAAS**), The World Academy of Sciences (**TWAS**), European Academies Science Advisory Council (**EASAC**), The InterAcademy Partnership (**IAP**)
- The 10th forum will be held in South Africa in 2021.

History of World Science Forum

	Year	Venue	Theme
Original	1999	Budapest, Hungary	World Conference on Science for the Twenty-First Century: a New Commitment
1st	2003	Budapest, Hungary	Knowledge and Society
2nd	2005	Budapest, Hungary	Knowledge, Ethics and Responsibility
3rd	2007	Budapest, Hungary	Investing in Knowledge: Investing in the Future
4th	2009	Budapest, Hungary	Knowledge and Future
5th	2011	Budapest, Hungary	The Changing Landscape of Science – Challenges and Opportunities
6th	2013	Rio de Janeiro, Brazil	Science for Sustainable Global Development
7th	2015	Budapest, Hungary	The Enabling Power of Science
8th	2017	Dead Sea, Jordan	Science for Peace
9th	**2019**	**Budapest, Hungary**	**Science Ethics and Responsibility**

World Science Forum 2019

Dates: November 20-23, 2019

Venue: Hungarian Academy of Science（Budapest, Hungary）

Theme: “Science, Ethics and Responsibility”

Scale: Over 1,100 researchers and policy makers from 120 countries participated and 150 presenters gave lectures in 50 sessions.

Speakers:

János Áder（President of Hungary),
Her Royal Highness Sumaya bint El Hassan（President, Royal Scientific Society of Jordan),
France Córdova (Director, NSF),
Bonginkosi Nzimande（Minister, Ministry of Higher Education, Science and Technology, South Africa),
Margaret A. Hamburg（Chair of the Board, AAAS),
Elmer William Colglazier Jr.（Editor in Chief, Science & Diplomacy, AAAS),
Carole Mundell（Chief Scientific Adviser, Foreign and Commonwealth Office UK),
Shamila Nair-Bedouelle（ Assistant Director-General UNESCO),
Daya Reddy（President, ISC),
Heide Hackmann（ISC CEO),
Michel Spiro（President Designate, International Union of Pure and Applied Physics (IUPAP),
Javier García Martínez（President-elect, International Union of Pure and Applied Chemistry (IUPAC)),
Chieko Asakawa（IBM Fellow, IBM Research),
Magdalena Skipper (Editor in Chief, Nature), et al.

Summary of Declaration 2019

"Declaration of the 9th World Science Forum:

Science, Ethics and Responsibility" Text adopted on 23 November 2019, Budapest

Science, Ethics and Responsibility

– 20 years after the 1999 World Conference on Science

1. We recall the 1999 Declaration on Science and the use of Scientific Knowledge and acknowledge the growing importance of the message.
2. We must ensure shared responsibility for ethical considerations to be recognized as intrinsic to defining the objectives of scientific inquiry, making funding allocations, and etc. This should apply in particular to the education and inclusion of young and emerging scientists and innovators**.**
3. We foster a proactive culture of self-regulation by scientists.
4. We embrace the Principle of Freedom and Responsibility in Science adopted by ISC member organizations, the renewed Recommendation on Science and Scientific Researchers adopted by UNESCO, and the AAAS Statement on Scientific Freedom and Responsibility as reference documents for further consideration.
5. We celebrate 20 years of international science dialogue since the 1999 World Conference on Science and 100 years since the establishment of the International Research Council, the first non-governmental organization to foster scientific collaboration on a global scale. We affirm our commitment to scientific responsibility for the global public good through attainment of the United Nations Sustainable Development Goals.

https://worldscienceforum.org/contents/declaration-of-world-science-forum-2019-110073

Declaration of the WSF 2019

1. Science for global well-being

- Science is a global public good with the ability to contribute to sustainable development and global well-being.

1. We recognize the responsibilities of scientists to conduct and apply science with integrity, in the interest of humanity, for well-being and with respect to human rights.
2. We call for the reassessment of science and funding policies recognizing the value of science as a tool to push the boundaries of human knowledge, to promote universal well-being, to monitor, analyze and respond to environmental, social and economic challenges, and to address the capacity needs of scientifically lagging countries.
3. We embrace the freedom of scientists to plan and conduct research that may not be specifically responsive to any immediate socio-economic or environmental expectations. Good science must be free to fly when curiosity is the driving factor.

2. Strengthen global standards in research integrity

- In the world of globalized science there is a growing need for the harmonization and promotion of research integrity which includes common codes of conduct and their enforcement. This should apply especially for rapidly developing areas of science and research performed by transnational entities.

1. We call for harmonization and enforcement of standards of conduct of scientific research across borders and across public and private research.
2. We acknowledge that worthy research requires more than intellectual merit and impact; it must be ethical, inclusive, and socially responsible.
3. We call for the establishment of self-regulatory processes by which scientists can report suspected research misconduct and other irresponsible research practices, without fear of reprisal, and the establishment of procedures for responding to such allegations.
4. We support regional and national efforts to promote global standards of research integrity, and in particular we celebrate the emergence from World Science Forum 2017 of the Charter of Ethics of Science and Technology in the Arab Region.

https://worldscienceforum.org/contents/declaration-of-world-science-forum-2019-110073

Declaration of the WSF 2019

3. Fulfilment of academic freedom and the human right to science

- While acknowledging that the principle of academic freedom is supported and promoted by science organisations globally, there is little consensus on the conditions that enable its fulfilment. In an evolving era in which science is increasingly dependent on research infrastructure, research funding, and top-down policy agendas, the concept of academic freedom must be revisited.
- Academic freedom must operate at every point in the research process. It must encompass the autonomy of researchers and research institutions, access to peer-reviewed scientific knowledge and data without systemic barriers, access to research infrastructure and funding, and the freedom to set bottom-up research agendas in all fields of science, including social sciences, and the freedom to communicate scientific results.

1. We acknowledge that scientific freedom can only be respected by society if it is based on strict ethical principles.
2. We call on the international scientific community to develop new standards for the fulfilment of academic freedom, and to create tools to describe, monitor and measure its integral conditions.
3. We acknowledge the vital nature of curiosity-driven basic sciences. We welcome the UNESCO's designation of 2022 as the International Year of Basic Sciences for Development.
4. We reaffirm our support for the rights of refugee and other displaced scientists.
5. We reinforce our commitment to promote the right to science for all—including those underrepresented and underserved by science, such as women and minorities —as an essential precursor to sustainable and prosperous societies and durable peace.

Declaration of the WSF 2019

4. The responsibility and ethics of communicating science

- The pace of scientific discovery has quickened, but barriers to scientific information and the benefits of research remain. The increased complexity and volume of scientific information requires new methods of data validation and research dissemination. While the application of artificial intelligence opens new paths for the management of scientific research and data, it also raises concerns about privacy, control and the use of personal data. Such developments alter the landscape of access to knowledge and present challenges in transitioning to novel publishing models and the application of new communication strategies.

1. We reinforce our commitment to science as a global public good and support open science and new publishing models that grant access to scientific publications.
2. We recognize the importance of scientists engaging with the public about science, including the risks associated with its conduct or application and the acknowledgement of other interpretations of research.
3. We encourage scientists to foster citizen science and to promote the co-creation of actionable knowledge.
4. We recognize the imperatives for evidence-informed decision-making and a stronger science-policy-practice interface and, therefore, the need for scientists to be trained to communicate their work to decision-makers and the general public.
5. We recognize the powerful role of media in communicating scientific information and call for rigorous fact checking and analysis in reporting. We call for a reassessment of science's relationship with media, particularly in view of conflicting or misleading news and information, and the use of false equivalence.
6. We encourage scientists to produce, apply and communicate science and to raise awareness of both the benefits and ethical considerations.

https://worldscienceforum.org/contents/declaration-of-world-science-forum-2019-110073

Today's Lecture

Dr. Fukushima

Dr. Fukushima Toshikazu

Fellow, Center for Research and Development Strategy (CRDS), JST

- Research and Development /Strategy in AI technology area at the Systems and Information Science and Technology Unit, CRDS

Dr. Fukushima graduated from School of Science, the University of Tokyo in 1982. He joined NEC Corp. where he engaged in research on the natural language processing and information retrieval. He served as a deputy managing director of NEC Laboratories China (2005-2009). While working at NEC, he was invited as a visiting professor at Graduate School of Information Science and Technology, the University of Tokyo (2011-2013). He joined JST in 2016, and also has been appointed as an auditor of the Japanese Society for Artificial Intelligence since 2018.

Prof. Kokuryo

Prof Kokuryo Jiro, Policy Management, Keio University

- Research Institute of Science and Technology for Society (RISTEX) "Human-Information Technology Ecosystem" focus area, Supervisor since 2016

Prof. Kokuryo graduated from the University of Tokyo in 1982, and acquired a Doctor of Business Administration (1992) from Harvard Business School while an employee of Nippon Telegraph and Telephone Corporation (1982-1993). He joined Keio in 1993 as an associate professor at the Graduate School of Business Administration, where he was appointed professor in 2000. He served as Executive Director of the Keio Research Institute at SFC (2005-2009) and Dean of the Faculty of Policy Management (2009-2013). He has been appointed Vice-President of Keio since 2013.