Corporate number 65

Description of AY 2019 Operational Performance and Third Medium-term (AY 2016–2019) Operational Performance Report

June 2020

National University Corporation
Hiroshima University

○ University overview

(1) Current profile (as of the end of AY 2019)

① Name: Hiroshima University

② Location

○ Headquarters: Kagamiyama, Higashi-Hiroshima City, Hiroshima Prefecture

○ Campuses: Higashi-Hiroshima Campus: Kagamiyama, Higashi-Hiroshima City, Hiroshima Prefecture
Kasumi Campus: Kasumi, Minami Ward, Hiroshima City, Hiroshima Prefecture
Higashi-Senda Campus: Higashi-Senda Town, Naka Ward, Hiroshima City, Hiroshima Prefecture

③ Officers

President : Mitsuo Ochi (since April 1, 2015)
Executive Directors : 7
Auditors : 2 (including one part-time auditor)

④ Schools

○ Academy

○ Headquarters for Education

○ Schools: 12
School of Integrated Arts and Sciences, School of Letters, School of Education, School of Law, School of Economics, School of Science, School of Medicine
School of Dentistry, School of Pharmaceutical Sciences, School of Engineering, School of Applied Biological Science, School of Informatics and Data Science

- Training and Research Vessel TOYOSHIO MARU* (School of Applied Biological Science)

○ Graduate Schools: 11
Graduate School of Integrated Arts and Sciences, Graduate School of Letters, Graduate School of Education, Graduate School of Humanities and Social Sciences, Graduate School of Science, Graduate School of Advanced Sciences of Matter, Graduate School of Engineering, Graduate School for International Development and Cooperation, Graduate School of Integrated Sciences for Life, Graduate School of Biomedical and Health Sciences, Hiroshima University Law School

- Marine Biological Laboratory* (Graduate School of Integrated Sciences for Life)
- Setouchi Field Science Center* (Graduate School of Integrated Sciences for Life) Saijo Station (farm)*
- Setouchi Field Science Center* (Graduate School of Integrated Sciences for Life) Takehara Station (Fisheries Research Station)*

○ Advanced Courses: 1
Special Course of Special Support Education

○ Attached Research Institutes: 1
Research Institute for Radiation Biology and Medicine*

○ Hospital

○ Library

○ National Joint Usage Facilities: 1
Hiroshima Synchrotron Radiation Center*

○ Joint Usage Facilities for National Universities in the Chugoku/Shikoku Area: 1
Saijo Seminar House

○ Joint Education and Research Facilities on Campus: 25
Research Institute for Nanodevice and Bio Systems;* Research Institute for Higher Education; Information Media Center; Natural Science Center for Basic Research and Development; Morito Institute of Global Higher Education; Center for the Study of International Cooperation in Education; Health Service Center; The Center for Peace; Environmental Research and Management Center; Hiroshima University Museum; Beijing Research Center; Hiroshima Astrophysical Science Center; Institute for Foreign Language Research and Education; Hiroshima University Archives; Institute for Sport Sciences; HiSIM Research Center; The Center for Contemporary India Studies at Hiroshima University; Research Center for Diversity and Inclusion; Amphibian Research Center, Translational Research Center; Resilience Research Center; Center for Brain, Mind and KANSEI Sciences Research; Hiroshima University Genome Editing Innovation Center; Hiroshima University Digital Monozukuri (Manufacturing) Education and Research Center; Harassment Consultation Office

○ Attached Schools: 11
Hiroshima University Kindergarten; Hiroshima University Kindergarten, Mihara; Hiroshima University Elementary School; Hiroshima University Elementary School, Shinonome; Hiroshima University Elementary School, Mihara; Hiroshima University Junior High School; Hiroshima University Junior High School, Shinonome; Hiroshima University Junior High School, Mihara; Hiroshima University Junior High School, Fukuyama; Hiroshima University Senior High School; Hiroshima University Senior High School, Fukuyama

Note: The asterisk denotes that the indicated facility has been certified as a base for either joint use, research, or educational use.

⑤ Students and school staff (as of May 1, 2019)

○ Students: Undergraduate students : 10,695 (including 88 international students)
Graduate students : 4,575 (including 1,317 international students, as well as students in the Law School and the Graduate School of Education's Professional Development Program for Teachers and School Leaders)
Advanced Course students : 11
Attached school students : 3,756

○ Teachers and administrative staff: Teachers: 1,952 (including 220 at attached schools)
Administrative staff: 1,753

(2) Basic Objectives of Hiroshima University

1 Principles

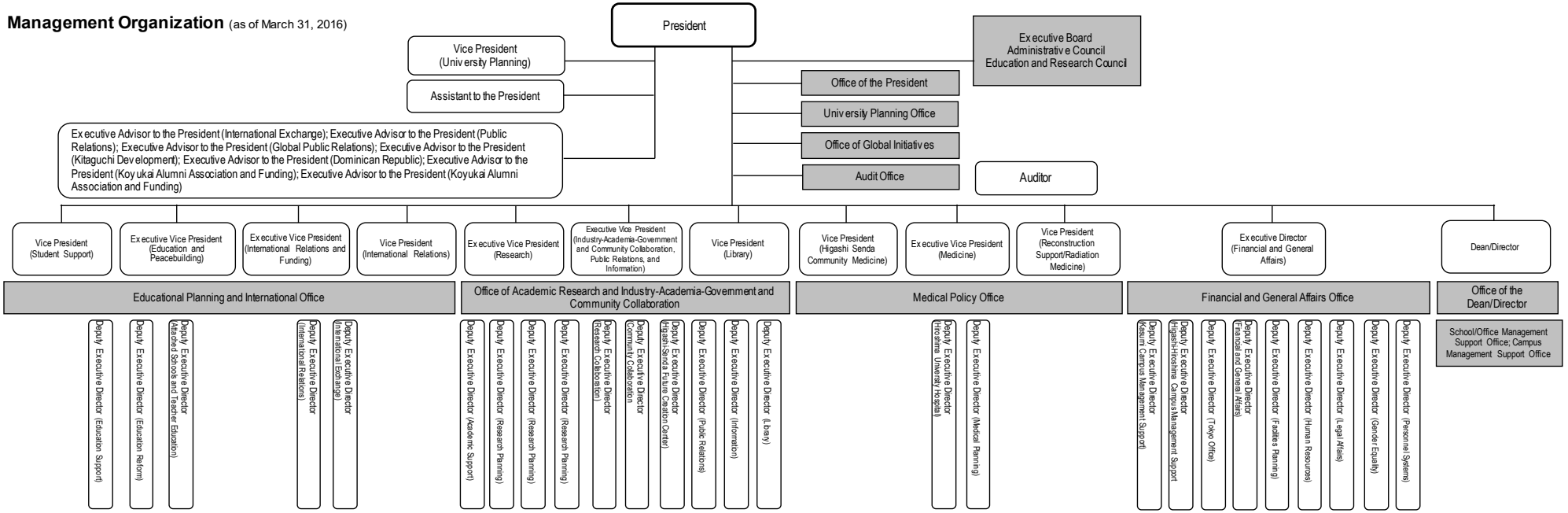
To fulfill its mission as a national university that upholds its founding principle of existing as “a single unified university, free and pursuing peace,” Hiroshima University is guided by the following principles: 1) pursue peace, 2) create new forms of knowledge, 3) help develop rich individuality, 4) cooperate with local and global communities, and 5) continue evolving as a university.

2 Basic policy

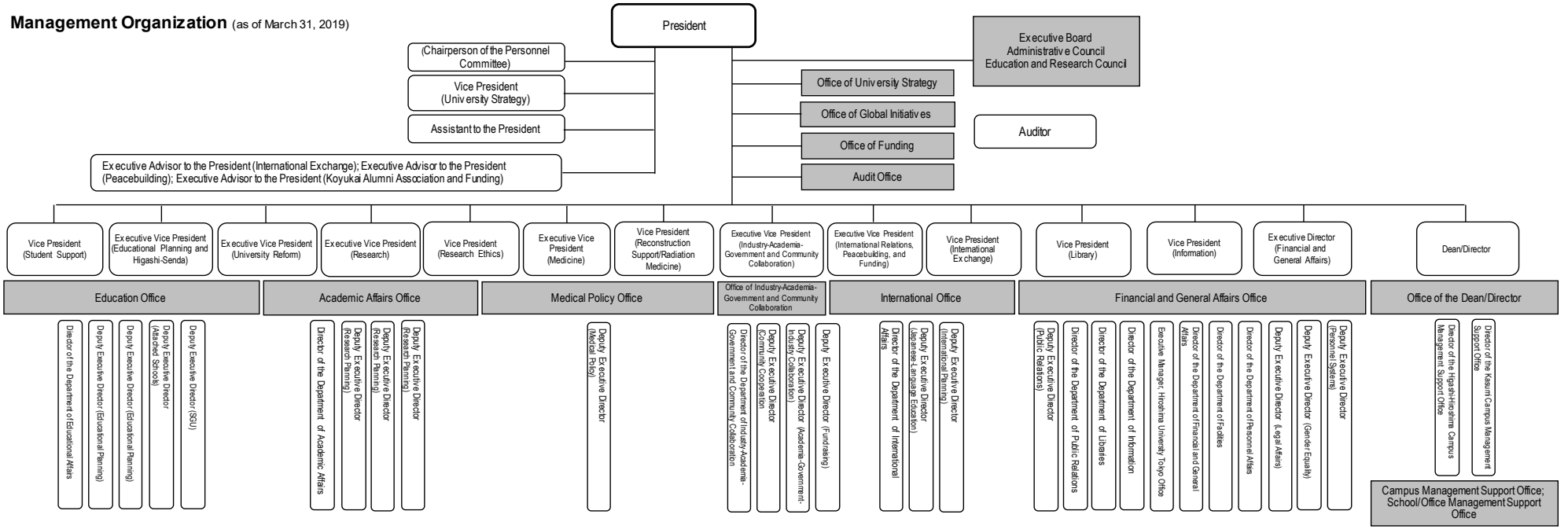
Located in Hiroshima—the world’s first A-bombed city, known as the International Peace Culture City—Hiroshima University aims to become a comprehensive research university that provides quality education and research opportunities at a level that will enable it to join the ranks of the world’s top 100 universities within the next decade. The university plans to achieve this by reforming itself thoroughly and promoting internationalization through steady implementation of the Hiroshima University Reform Plan, which includes the Research University Enhancement Promotion Project and Super Global University Creation Support Project (with the type-A aim of becoming globally competitive).

In addition, in continuing to respond to the social needs of the times and thereby shine globally over the next century, the University aims to improve its capabilities and strengths so that it can serve as Japan’s national center and Chugoku-Shikoku’s regional center and help the country to continue functioning as a world leader. Furthermore, Hiroshima University aims to cultivate peace-pursuing, internationally-cultured people able to work both globally and domestically by maximizing its traditional liberal arts expertise and providing specialized, internationally competitive education programs, based on global cutting-edge research.

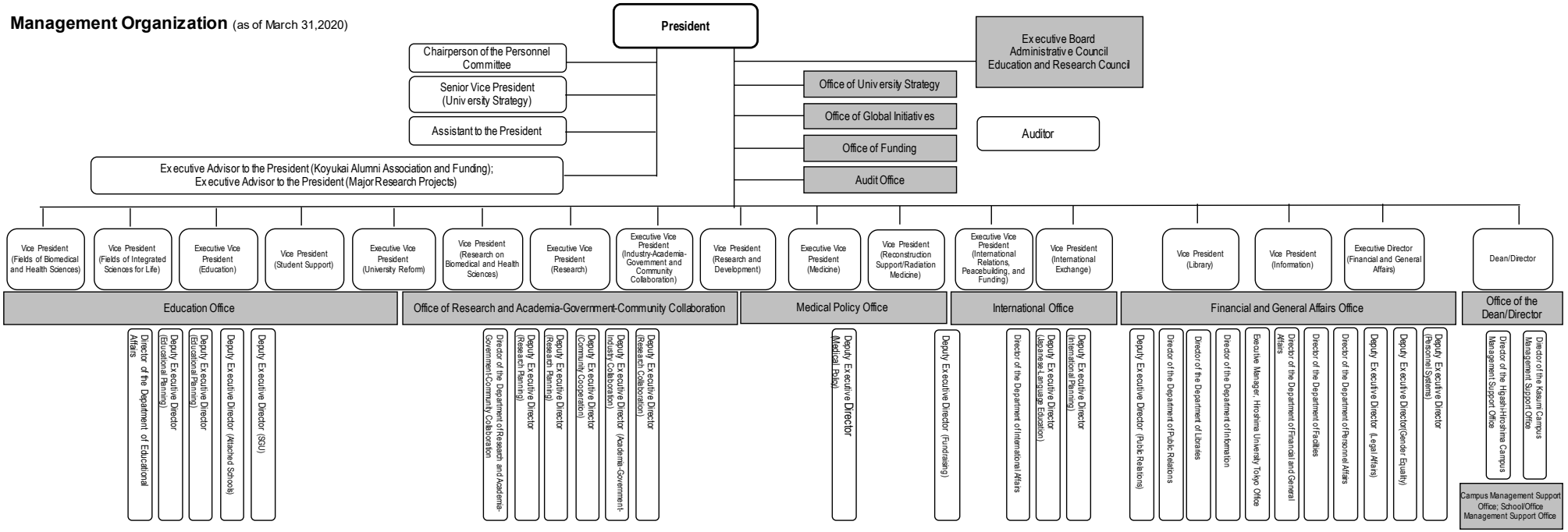
Management Organization (as of March 31, 2016)



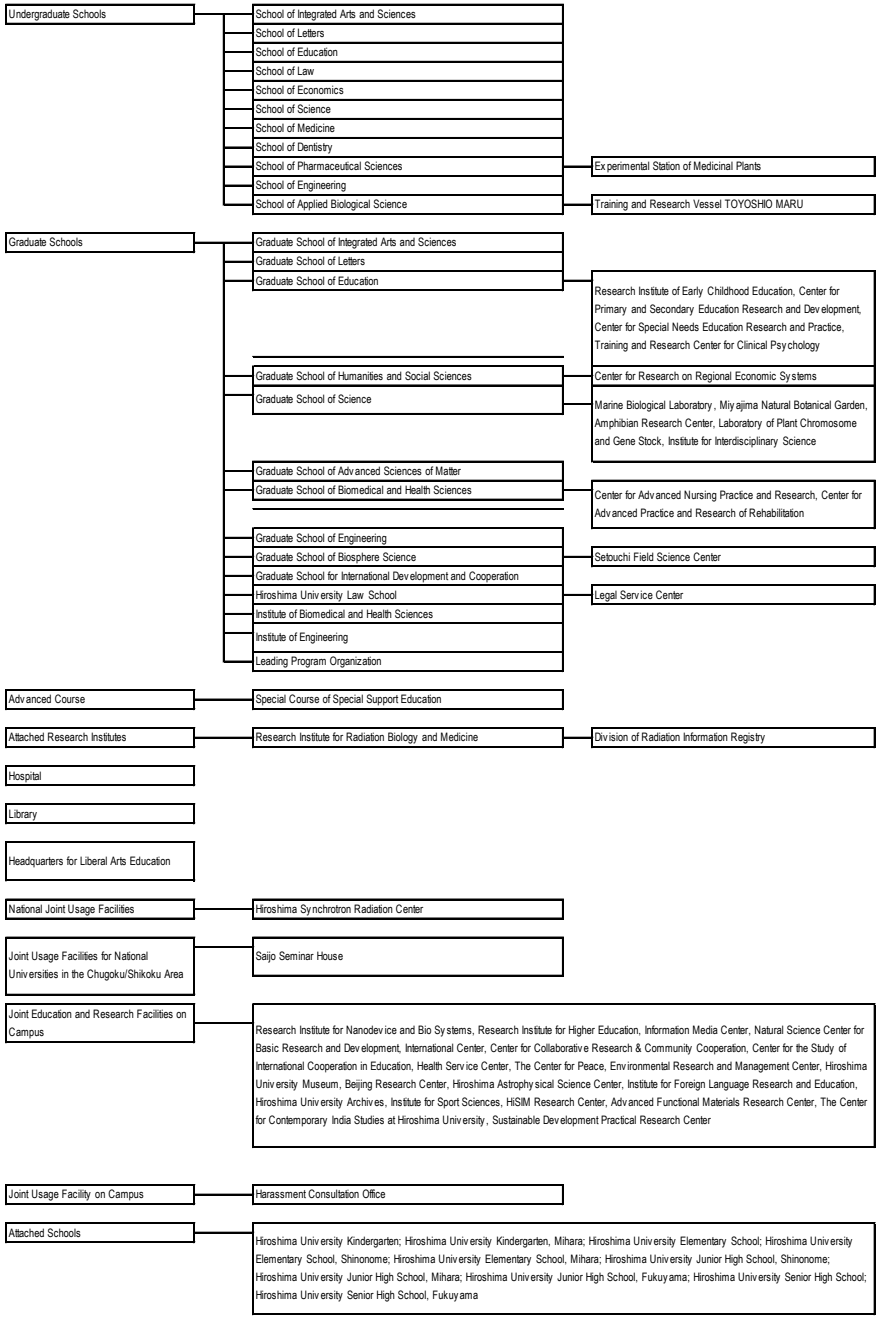
Management Organization (as of March 31, 2019)



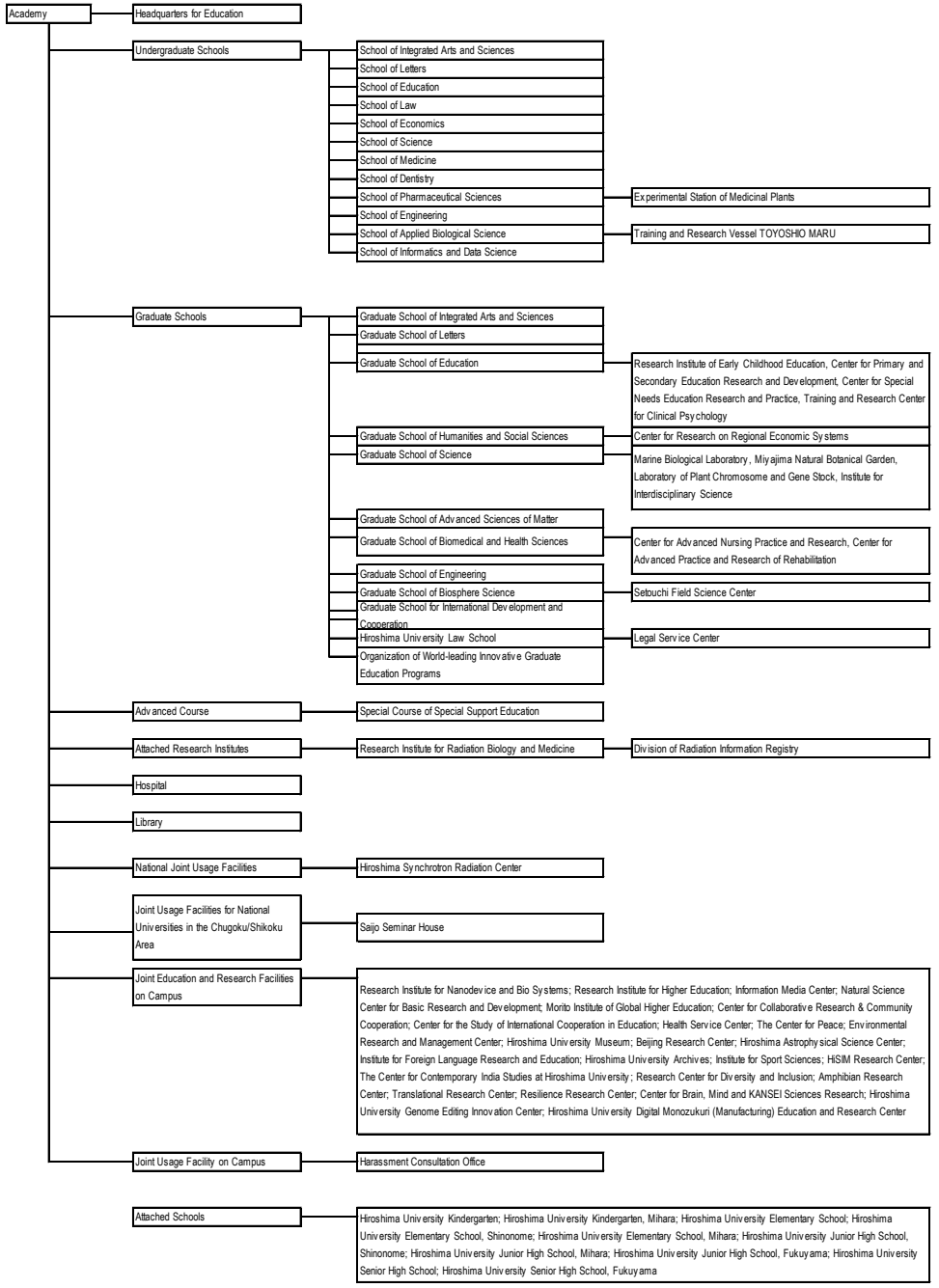
Management Organization (as of March 31,2020)



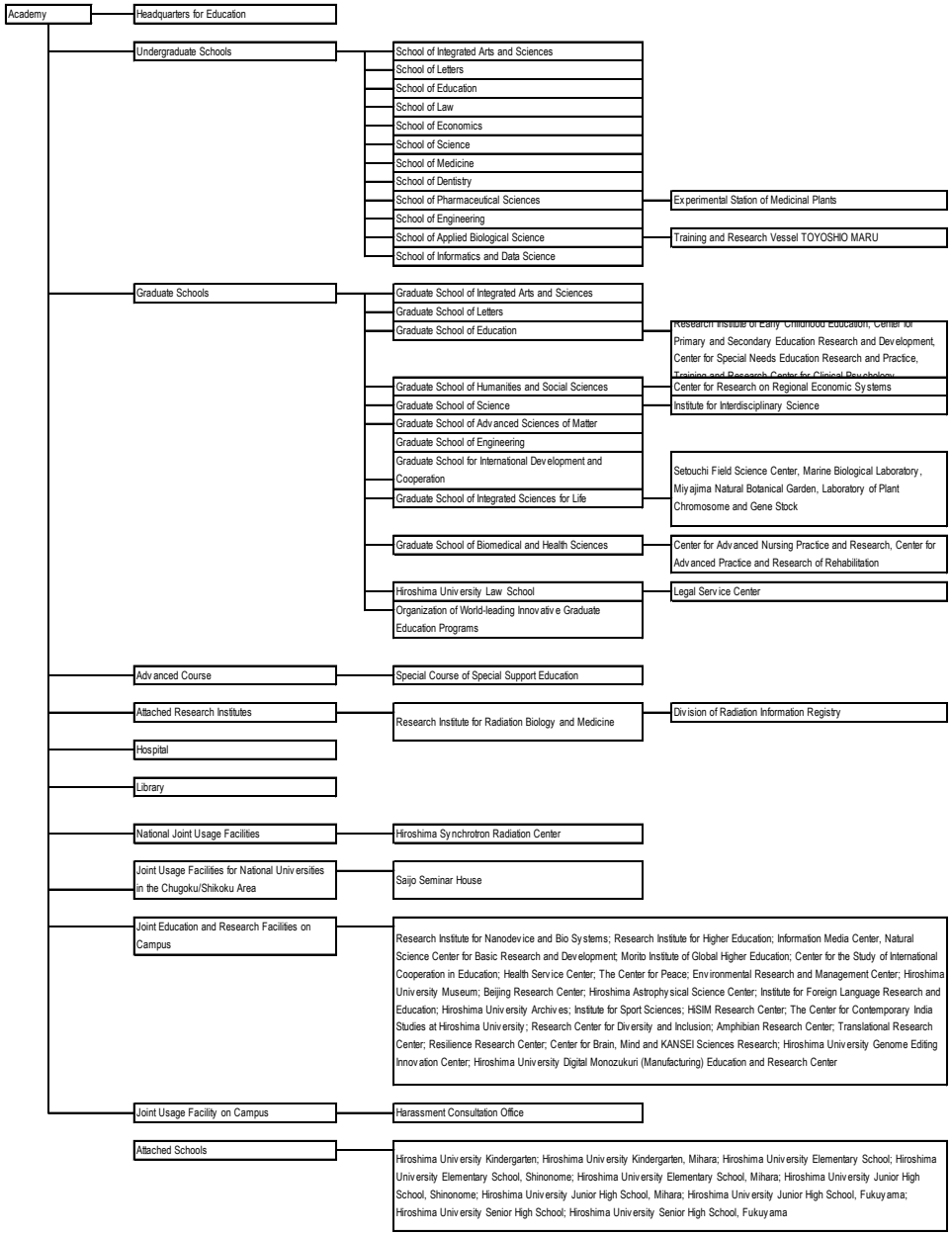
Education and Research Organizations (as of March 31, 2016)



Education and Research Organizations (as of March 31, 2019)



Education and Research Organizations (as of March 31, 2020)



○ Overview

To help build a free and peaceful international community that cherishes diversity, Hiroshima University is devoted to upholding its founding principle of existing as “a single unified university, free and pursuing peace” in undertaking education and research, practicing medicine, and taking part in community service. In accordance with its third medium-term goals as a university assigned to undertake the Research University Enhancement Promotion Project (RU) and Super Global University Creation Support Project (SGU [with the type-A aim of becoming globally competitive]), to continue to meet its responsibilities and thereby shine over the next century, in AY 2018, the University internationalized its education and strengthened its research capacity even further. To produce the best possible results regarding its RU and SGU, Hiroshima University is currently steadily executing a 10-year plan, titled “SPLENDOR PLAN 2017” (formulated in April 2017).
In April 2018, the University established the School of Informatics and Data Science as a hub for data science and informatics education, and the Department of Integrated Global Studies in the School of Integrated Arts and Sciences to lead its effort to globalize its campuses and also cultivate people able to help resolve international issues.
In addition, to effectively streamline the results of teachers’ activities to strengthen the University’s functions, in April 2016, Hiroshima University established a governance system for its human resource processes, under which all matters from personnel assignment, recruitment, and promotion to candidate screening are subject to discussion by the Executive Board before eventually being decided by the President. For instance, to enable the University to make decisions on personnel salary points and teacher assignment from strategic and systematic perspectives that transcend different education and research organizations, responsibility for their management is centralized and given to the University’s Central Personnel Committee, established under the President’s authority. This committee collaborates with the Academy—a teachers’ association independent of all education and research organizations—and uses the following indicators developed by the University in making its decisions: 1) an Achievement-motivated Key Performance Indicator (AKPI), which monitors teacher performance in education and research; and 2) a Basic Effort Key Performance Indicator (BKPI). The establishment of this governance system consequently led to the following achievements: 1) active employment of teachers who are young, non-Japanese, female, and paid based on an annual salary system; and 2) the establishment of the Graduate School of Integrated Sciences for Life and the Graduate School of Biomedical and Health Sciences in 2019, as well as the establishment of the Graduate School of Humanities and Social Sciences and the Graduate School of Advanced Science and Engineering in 2020.

○ Highly strategic and ambitious objectives and plans

Unit 1	Efforts aimed at joining the ranks of the world's top 100 universities
Medium-term goal [1]	Cultivate peace-pursuing, internationally-cultured people with the knowledge, expertise, and specialized skills needed to help identify and resolve the various unpredictable issues faced by humanity.
AY 2019 plan [1]	Examine whether the syllabi are numbered consistently and appear on the screen properly, and edit and fix them as necessary.

[AY 2019 plan progress status]
- As happened last academic year, this year's syllabi examiners also achieved a consistently-numbered syllabus development rate of 100% with both Japanese and English syllabi (as of April 2019).
- Examination of syllabus numbering consistency and content revealed inconsistencies in the descriptions provided in some syllabi's "Year of Study" and "Course Level" sections. Therefore, through the Academic Affairs Committee of the Headquarters for Education, the relevant schools/offices were asked to correct them in their AY 2020 syllabi.

AY 2019 plan [2]	Have all schools develop degree programs comprising courses taught entirely in English.

[AY 2019 plan progress status]
- In AY 2019, a total of 19 degree programs taught entirely in English started being offered at the following schools, including the Department of Integrated Global Studies in the School of Integrated Arts and Sciences, established in AY 2018: 1) the Schools of Integrated Arts and Sciences, Law, Economics, Science, Medicine, Dentistry, Pharmaceutical Sciences, and Applied Biological Science, which developed one program each; and 2) the School of Engineering, which developed 11. Other schools are also in the process of developing English-based degree programs.
- To respond to the accompanying need for liberal arts courses primarily taught in English, the General Education Control Department made necessary arrangements to increase the number of such courses from 141 (in AY 2019) to 160 (as of AY 2020).

AY 2019 plan [3]	Achieve a rate of approximately 25% of undergraduate students with TOEFL iBT scores of 80, and to do so, improve courses taught in English and the Global Peace Leadership Program and also regularly measure students' English language proficiency.

[AY 2019 plan progress status]
The percentage of undergraduate students meeting the University's standard of English language proficiency (i.e., a TOEFL iBT score of 80 or its equivalent, a TOEIC score of 730) in AY 2016 was 6.3%. To improve this rate, the measures described below were taken as part of this medium-term plan, eventually more than doubling the rate in AY 2019 as follows: 1) 8.3% (901/10,818) in AY 2017, 2) 11.1% (1,222/11,020) in AY 2018, and 3) 13.5% (1,483/10,976) in AY 2019.

① Gathering data to base measures on by identifying students' English language proficiency and then analyzing their skills from diverse perspectives
The University annually administers two TOEIC L & R IP tests; once in May and again in November. Students are required to take the test at least twice before graduating (the fees for which are covered by the University). In addition, in November AY 2016, the University decided to generally allow both undergraduate and graduate students who want to take the TOEIC L & R IP test more than the required number of times to do so twice every year with the fees covered by the University. In this way, the University's total number of TOEIC L & R IP annual test takers now averages about 7,500 (i.e., 50% of all existing students). In addition, the University analyzed students' test results from diverse perspectives, and based on its analyses, employed measures to help them maintain their motivation for learning English.
To help students study English regularly and thereby improve their proficiency, in AY 2016, the University calculated newly enrolled students' estimated English language proficiency improvement rates, organized them into graphs, and uploaded each student's graph to their own information portal website "Momiji" page so that they could track their progress against their estimated improvement rate.

② Improving educational programs

To help students enhance their English language proficiency, the University improved the following programs and assessed their effectiveness by analyzing students' TOEIC scores.

- To help students enhance their English language proficiency, the University improved its Global Peace Leadership Program (introduced in AY 2017), designed to cultivate peace-pursuing, internationally-cultured, globally-competitive people—with a deep understanding of Japanese culture and peace, the English language skills and leadership needed to help identify and resolve multicultural issues, and strong career development skills—and assessed its effectiveness by analyzing students' TOEIC scores. In AY 2019, the Global Peace Leadership Program received 35 undergraduate registration applicants, and based on screenings of applications and interviews, it welcomed 20. The program sent 14 registered students who enrolled in AY 2018 overseas to study abroad for different lengths of time, ranging from about one to ten months, at universities primarily in the following countries: China, the UK, Switzerland, Thailand, Singapore, Germany, Lithuania, the U.S., Indonesia, and India. Subsequently, to encourage other students registered with the program to study abroad, the program had nine students who returned from studying abroad present their experience at a briefing. In addition, to help students improve their English language proficiency, the program provided free-of-charge IELTS test-taking opportunities to 20 registered freshmen students, of whom 16 actually took the test, which serves as a good indicator of whether a person has the English language skills needed to study abroad.
- As in the preceding academic year, AY 2019 offered Communication Practice I and II and achieved the following results.
  - ○ With help from students in Communication Practice I, an analysis of their TOEIC L & R IP scores revealed that 175 students who took the test in both April and May averaged a 158-point increase in their second test. In addition, 28% (or 49) of those who scored below 730 in April scored higher than 730 in May.
  - ○ With help from students in Communication Practice II, an analysis of their TOEIC L & R IP scores revealed that 109 students who took the test in both October and November averaged a 77-point increase in their second test. In addition, 19 of those who scored below 730 in October scored higher than 730 in November.
  - ○ With help from students in both Communication Practice I and II, an analysis of their TOEIC L & R IP scores revealed that 107 students who took the test in April, May, October, and November averaged a 147-point increase between April and May, a 76-point increase between October and November, and a 186-point increase between April and November.
- In late September, to help students achieve higher TOEIC scores and improve their English communication skills, the University held short-term language training programs, based on curricula similar to those offered by overseas training programs, on Higashi-Hiroshima and Kasumi campuses and welcomed 38 and 11 participants, respectively. Subsequently, the University conducted a participant-satisfaction survey and received responses from 35 undergraduate and graduate students, of whom 31 answered either "Extremely satisfied" or "Satisfied."
- To help students improve their listening skills, broaden their political, economic, business, and other specialized vocabularies, and enhance their reading skills, the University offered an extracurricular course, titled "Brush up Your English Language Proficiency by Learning from Native Speakers"—which used a textbook featuring news articles written in English and had participants discuss what they read—and welcomed 153 participants. Subsequently, to enable it to assess the course's effectiveness, the University required participants to take the TOEIC L & R IP test in November, and an analysis of test results provided by 74 undergraduate students saw an increase in more than half—46 students—compared to the scores of the same students submitted earlier when they applied for the course.
- In addition, the Institute for Foreign Language Research and Education offered a language learning program with ubiquitous accessibility via the Internet, titled "Online English Learning NEXT," which welcomed the following numbers of undergraduate users, indicated along with the name of the courses they were taking at the time: 1) 222 in the Intermediate Level of Comprehensive English Training, 2) 82 in the Advanced Level of the same course, 3) 88 in Achieve a Score above 500 on the TOEIC L & R Test, 4) 420 in Achieve a Score above 600 on the TOEIC L & R Test, 5) 338 in Achieve a Score above 730 on the TOEIC L & R Test, and 6) 413 in Broaden Your English Vocabulary.

Medium-term goal [2]	Cultivate peace-pursuing, globally-competitive people with highly specialized skills and the expertise needed to create original value and help identify and resolve various unpredictable issues faced by humanity.
AY 2019 plan [7]	Reexamine policies relating to the introduction of degree programs entirely comprising courses taught in English, based on assessments of the University's 69 graduate school degree programs established by AY 2018, including those at the Graduate School of Integrated Sciences for Life and Graduate School of Biomedical and Health Sciences.

[AY 2019 plan progress status]

- With the number of degree programs comprising courses taught entirely in English totaling 69 by April 2018, the University achieved its AY 2019 goal of establishing 66 such degree programs. In addition, the University developed four more degree programs comprising courses taught entirely in English, and with these added to last academic year's number of such programs, the total as of April 2019 reached 73.

AY 2019 plan [8]	Achieve a rate of approximately 30% of graduate students with scores of 86 or higher on the TOEFL iBT—an English language test for students with specialized academic backgrounds—and to do so, encourage students to give presentations at international academic conferences and also develop more courses and degree programs offered entirely in English.

[AY 2019 plan progress status]

- To help students improve their listening skills, broaden their political, economic, business, and other specialized vocabularies, and enhance their reading skills, in AY 2019, the University began offering an extracurricular course, titled "Brush up Your English Language Proficiency by Learning from Native Speakers"—which uses a textbook featuring news articles written in English and has participants discuss what they read—and welcomed 86 participants. To assess the course's effectiveness and identify any aspects that need to be improved, participants are asked to take the TOEIC L & R IP test after completing the course.
- To inform graduate students that the fees for the TOEIC L & R IP Tests administered University-wide in May and November were to be covered by the University, the University used the student information portal website "Momiji," which led to the following total numbers of graduate-student test takers and other test takers with scores 780 or higher.

Month	Number of examinees	Examinees who achieved scores of 780 or higher	Note
May	432	69	Compared to last year's 402, the number of examinees increased by 30. Compared to last year's 60, the number of examinees who achieved scores equivalent to 86 or higher on the TOEFL iBT (or 780 or higher on the TOEIC) increased by 9.
November	417	77	Compared to last year's 457, the number of examinees decreased by 40. Compared to last year's 62, the number of examinees who achieved scores equivalent to 86 or higher on the TOEFL iBT (or 780 or higher on the TOEIC) increased by eight.

- In late September, to help students achieve higher TOEIC scores and improve their English communication skills, the University held short-term language training programs, based on curricula similar to those offered by overseas training programs, on Higashi-Hiroshima and Kasumi campuses, and welcomed 28 and 6 participants, respectively. Subsequently, the University conducted a participant-satisfaction survey and received responses from 35 undergraduate and graduate students, of whom 31 answered either "Extremely satisfied" or "Satisfied."
- In addition, the Institute for Foreign Language Research and Education offered a language learning program with ubiquitous accessibility via the Internet, titled "Online English Learning NEXT," which welcomed the following numbers of graduate-student users, indicated along with the name of the courses they were taking at the time: 1) 49 in the Intermediate Level of Comprehensive English Training, 2) 41 in the Advanced Level of the same course, 3) 28 in Achieve a Score above 500 on the TOEIC L & R Test, 4) 106 in Achieve a Score above 600 on the TOEIC L & R Test, 5) 80 in Achieve a Score above 730 on the TOEIC L & R Test, and 6) 80 in Broaden Your English Vocabulary.
- Compared to last academic year, the percentage of graduate-school courses taught in English increased by 3.5% to reach 36.9% (as of the end of AY 2019). In addition, the University developed four more degree programs comprising courses taught entirely in English, bringing the total of such programs to 73 (as of April 2019).
- A total of 1,159 graduate school students had their English language proficiency measured by the TOEIC, of whom 261 (22.5%) achieved scores of 780 or higher.

Medium-term goal [5]	Improve the quality of the University's education to international levels by strengthening its educational system with help from other universities
AY 2019 plan [12]	Inspect and evaluate the quality of the University's bachelor's degree and graduate school programs. In addition, review the University's education quality assurance system, based on assessments of last-academic-year efforts.

[AY 2019 plan progress status]

- The University inspected its education quality assurance system, and to improve its inspection and evaluation standards to international levels, when submitting and thereby announcing its Student Experience in the Research University (SERU) survey results to the SERU Consortium, instead of simply presenting its results per se, the University compared them with those announced by other SERU-Consortium affiliated universities located overseas, by presenting its own and other's results side-by-side.
- To identify courses that are urgently required to be improved so that it can help instructors by visiting classes as necessary, the University set a number of criteria based on student feedback received through questionnaires for class improvement, which are administered once every term.
- After receiving suggestions from key member universities of the Student Experience in the Research University (SERU) Consortium through SERU's On-site Consortium Team Survey Results Report, the University recognized the need to put students at the center of learning and help them see their own progress. Accordingly, on April 1, 2020, to provide students with consultation services and help with their studies and thereby significantly improve its educational environment, the University decided to establish the Center for Academic Practice and Resources.

Medium-term goal [6]	Improve the University's educational environment and also respond to the needs of diverse students (including international, working-adult, and physically challenged students).

AY 2019 plan [14]	Keep track of the number of students who received the Hiroshima University Pre-enrollment Scholarship up until the preceding academic year along with the amount each student was given.

[AY 2019 plan progress status]
- According to the AY 2018 recipient-satisfaction survey of the Hiroshima University Pre-enrollment Scholarship, offered to international students since AY 2017, more than 80% answered "Satisfied." In addition, to attract more international students, in AY 2019, the University sent out notices about its fall-semester, pre-enrollment scholarship applicant recruitment in July—one month earlier than the preceding academic year—and selected seven prospective scholarship students.
- Furthermore, to inform as many people overseas who might be interested in studying at the University of the pre-enrollment scholarship system, the University made efforts to widely promote it, including posting a notice on both its Japanese and English websites and also the student information portal website "Momiji." To make the pre-enrollment system widely known to potential international students overseas, efforts will continue to be made next academic year and after.

Medium-term goal [7]	Offer new admission options to attract talented people with diverse backgrounds from regions throughout Japan and across the world.
AY 2019 plan [18]	Examine whether the use of English-language qualification tests that assess the four language skills as part of the general admission process at all schools worked to the University's advantage, identify any possible issues, and organize the findings into a report.

[AY 2019 plan progress status]
- Regarding the Assumed Perfect Score system—introduced into the University's entrance examination system in AY 2018 to award those interested in enrolling in AY 2019 and meeting the external English-language qualification-test score criteria defined by the University: a perfect score on the National Center Test for University Admissions' foreign (English) language test—a report containing the following items, based on data relating to the University's general entrance examination (partly composed of the National Center Test for University Admissions), its Hiroshima-University Shining, Admissions Office, and Recommendation-based entrance examinations—as well as its School/Department of Medicine's entrance examination (taken by those who applied for enrollment seats reserved for people originally from Hiroshima)—was released in June 2019 by the University's Entrance Examination Committee in the Headquarters for Education through the Office of Admissions: 1) the number of Assumed Perfect Score system users, categorized by admission type and region; 2) the number of such system users who passed/failed; and 3) analyses of such system users' National Center Test for University Admissions' foreign (English) language test scores in relation to their language test scores on the University's own academic achievement test. In addition, in September 2019, the University's Student Academic Achievements Tracking Committee released another report from the Office of Admissions, titled "An Analysis of the Assumed Perfect Score System Users Who Enrolled in AY 2019—with Focus on Their TOEIC Scores Achieved After Enrollment." Assumed Perfect Score system users were found as scoring highly on all of the following tests: 1) the National Center Test for University Admissions' English language test; 2) the University's own academic achievement test; and 3) the TOEIC L & R IP test that freshmen students are required to take in May.
- In response to the Minister's Message released by the Ministry of Education, Culture, Sports, Science and Technology on November 1, 2019, primarily about the withdrawal of its plan to develop a University Admission English Language Test Score Provision System, under the title "On Hiroshima University's Policies on Applying Private-sector English Language Tests to the AY 2021 Entrance Screening Process," the University announced on its website its policies on applying private-sector English language test scores to all of its various types of entrance screening processes, along with its intention to continue using the Assumed Perfect Score system in relation to the National Center Test for University Admissions' foreign language (English) test.
- Compared to last academic year, the percentage of applicants who used the Assumed Perfect Score system in applying for the February 5 deadline-set general entrance examination (administered in AY 2019) to select AY 2020 enrollees increased by 1.3% to reach 6.4%, reflecting the system's growing popularity.
- The number of applicants for the University's entrance examination for holders of the International Baccalaureate (IB) Diploma, awarded to those who have completed a program designed to develop foreign language proficiency, strong communication skills, a proper understanding of the international community, good logical thinking skills, and an independent learning attitude, shows an increasing trend as follows: 1) 2 (including 1 passer) for the AY 2017 examinations (administered in AY 2016) by different schools, 2) 8 (including 4 passers) for the AY 2018 examinations (administered in AY 2017) by 5 different schools, 3) 8 (including 2 passers) for the AY 2019 examinations (administered in AY 2018) by 4 different schools, and 4) 17 (including 8 passers) for the AY 2020 examinations (administered in AY 2019) by 7 different schools.

AY 2019 plan [19]	Examine whether the University's self-made online application system's English version, which helps prospective students throughout the process of applying and enrolling, is working to the University's advantage and identify any possible issues that need to be resolved to improve it.

[AY 2019 plan progress status]
- To help prospective students in English-speaking countries apply from outside Japan, the University carefully examined the English translations provided on its online application/enrollment portal website, titled "UCARO" (hereinafter, "UCARO"). Subsequently, UCARO also became available to prospective graduate-school students interested in applying in the second half of AY 2019 (from October to March) for either the Graduate School of Integrated Sciences for Life or the Graduate School of Biomedical and Health Sciences.
- Before AY 2019, the online services, which began being offered in AY 2014 by the University to prospective students, were limited to application procedures for some entrance examinations. However, in AY 2019, the University introduced the UCARO online portal website to increase the convenience for prospective students by allowing them to complete all procedures, from applying for any entrance examination offered by any school, through subsequent enrollment. The number of applicants who have used the University's online application system totals 8,059 for undergraduate schools and 595 for graduate schools; those who have enrolled online with UCARO so far totals 2,476 for undergraduate schools and 165 for graduate schools. In addition, UCARO has a messaging function that allows the University to quickly inform applicants (examinees) of urgent matters, which proved to be useful in disseminating information on measures taken against the novel coronavirus.

Medium-term goal [8]	Promote highly original research in creative fields worldwide, and by doing so, enhance the University's research capacity to among the best in the world through collaboration with domestic and international organizations.
AY 2019 plan [22]	Provide instructors/researchers with excellent research environments that will help them concentrate on their research and thereby increase the number of academic papers/findings and contribute to improving the University's research productivity indicator, hopefully allowing it to join the ranks of the world's top 100 comprehensive research universities; in addition, with help from University Research Administrators (URAs), enhance the University's research capacity by employing measures to attract talented researchers and secure external funding sources, as well as international joint research opportunities.

[AY 2019 plan progress status]

- As measures to help secure external funding sources, URAs provided researchers with the following types of help: 1) introductory, intermediate, and advanced level how-to-apply seminars on Grants-in-Aid for Scientific Research (KAKEN) for beginners and those who previously applied without success or want to apply for higher-level KAKEN grants than those they had previously been awarded; and 2) advice on how to write research proposals if applying for external funding sources that award large grants, including the Japan Science and Technology Agency and Japan Agency for Medical Research and Development. In addition, to help find international joint research opportunities, URAs served as facilitators and coordinated research meetings with overseas research institutes.
- To help researchers find partners to collaborate with on interdisciplinary research projects that will lead to papers able to secure external funding and also help young researchers form teams, URAs coordinated a Hiroshima University *hyakunin ronbun* (Researcher Matchmaker Project) event. The event welcomed 68 poster presentations, which sparked many lively discussions that led to new joint research projects and cross-university networks.
- To facilitate information sharing between the University's headquarters and graduate schools, the Research Promotion Committees, established in AY 2018 in the University's graduate schools, shared best practice measures for improving the University's research productivity indicator, including producing more research papers and securing KAKEN grants, and regularly monitored progress. The Executive Directors of Research and each graduate school's Vice Dean of Research held thought-sharing meetings to discuss efforts in progress, while graduate schools encouraged researchers to produce more papers by regularly exchanging at Faculty Meetings a list of papers published by each researcher. Compared to the 40% achieved in AY 2015, the percentage of instructors at the Graduate School of Engineering with no Science Citation Index papers dropped to 27% in AY 2018, as revealed by its AY 2019 analysis, reflecting an increase in the graduate school's overall research capacity.
- The University's proposal, titled "World-Class Researcher Development Through Regional Collaboration (HIRAKU-Global)"—based on its experience of cultivating/securing young and talented researchers—was submitted to and selected by the Ministry of Education, Culture, Sports, Science and Technology for MEXT's AY 2019 Project to Strategically Cultivate Globally Competitive Researchers. Taking this as a good opportunity to develop systems and training programs that will help young researchers grow, the University took the following actions: 1) reform of personnel systems, including its tenure track system; 2) centralization of faculty organizations within the Academy; 3) organizational reform, including restructuring graduate schools in ways that will promote interdisciplinary research; and 4) research capacity enhancement, including creating excellent research environments for younger researchers. In addition, the University recruited researcher trainees for its AY 2020 HIRAKU-Global program.

Medium-term goal [9]	Improve research management functions so that research activities can be properly evaluated and support can thereby be optimally provided to areas of priority.
AY 2019 plan [23]	Evaluate the University's research activities to identify the research areas that need to be prioritized so that it can assign more researchers and other staff to them.

[AY 2019 plan progress status]

- To help young researcher trainees in the HIRAKU-Global program, the University developed the HIRAKU-Global PF system by reorganizing the HIRAKU-PF system—the University's E-Portfolio Platform for doctoral program students and postdoctoral researchers to set and manage goals and track their own progress. Unlike its predecessor, the HIRAKU-Global PF system uses the Common Key Performance Indicator (C-KPI), shared by the University, Ehime University, Tokushima University, Yamaguchi University, and Shimane University, to monitor and analyze research capacities demonstrated by research trainees.
- To evaluate research activities conducted at its strategically prioritized research institutes, including the Incubation Research Center and other independent research centers, in ways that will enable it to assign personnel to them in strategic and systematic ways from a University-wide perspective that transcends individual education and research organizations, the University applied its Achievement-motivated Key Performance Indicators (AKPI) to its evaluation. In AY 2019, the University assigned 27 personnel to research centers previously identified as areas that need to be strategically prioritized.

Medium-term goal [12]	Make the University more internationally recognized by thoroughly promoting internationalization, and by doing so, improve the quality of its education to globally competitive levels so that it can join the ranks of the world's top 100 universities.
AY 2019 plan [30]	Review last academic year's measures aimed at attracting more international students, make changes to them as necessary, and increase the percentage of international students to 11.5% or higher. In addition, review last academic year's study abroad programs, including the Study Tour Abroad for Realization and Transformation (START) program, make any changes needed to better respond to students' needs, and increase the percentage of Japanese study-abroad program participants to 7.6% or higher.

[AY 2019 plan progress status]

The University maintained the excellent quality of its study abroad programs, while developing different ones, which led to increasing the percentage of international students to 11.18% (as of May 1, 2020) and that of Japanese one-year study-abroad program participants in AY 2019 to 5.56%.

i) Description and use of the Japanese-version BEVI analytic tool (i.e., a cross-cultural adaptation aptitude test)

In AY 2016, Hiroshima University developed a cross-cultural adaptation aptitude test, titled the "BEVI-j"—a Japanese version of the Beliefs, Events, and Values Inventory (BEVI). The BEVI-j objectively assesses the influence that educational programs, including study abroad programs—both inbound and outbound ones—have on our non-cognitive competencies. The BEVI-j test can also help program designers ensure program quality, perform PDCA, and practice EBPM. To respond to the need of other universities for a method that will help them objectively evaluate their own educational efforts, assess their quality, and practice EBPM, in AY 2019, the University held 56 workshops, three of them overseas, which welcomed about 1,200 participants from 550 universities, organizations, and companies, and also gave five presentations at conferences, four of them overseas. In addition, the University was selected by the Japan Student Services Organization (JASSO) as a recipient of its subsidy for holding international symposiums, and subsequently held one at JASSO's international conference hall, welcoming 190 attendees. By the end of AY 2019, the BEVI-j test has been adopted by 41 national, public, and private universities, about 40% of which comprises 14 of the 37 SGU affiliated universities, including the following: University of Tsukuba, University of the Ryukyus, Sophia University, Kansai University, Ryukoku University, Soka University, Kwansei Gakuin University, and Osaka University. In addition, in collaboration with an American university (Purdue University), Hiroshima University developed a Chinese version of the BEVI, available in both simplified and traditional Chinese for inbound study aboard programs.

In AY 2019, in addition to being taken by all 2,700 newly enrolled students, the BEVI-j test was administered about 4,200 times to participants of any of the University's 45 study-abroad programs (thereby being taken by the same students multiple times before and after studying abroad). Consequently, the University was able to objectively assess the effectiveness of its study-abroad programs, changes in participants' attitudes before and after studying abroad, and BEVI-j data-based differences between them and nonparticipants. Furthermore, to examine whether the study-abroad programs were able to help participants improve target competencies to expected levels and also improve the programs, the University analyzed the distribution of participants' BEVI-j test scores, organized analyses into evaluation reports, and sent them to all program supervisors.

ii) Promoting short-term study-abroad START programs

To help students develop an interest in interacting with people of other countries and participating in long-term study-abroad programs, in AY 2019, the University sent 180 students to seven countries and regions on one of eight courses administered under its short-term study-abroad START Program or START+ Program—approximately two-week programs offered with help from the University's overseas partner universities—with the following aims: 1) introduce students to cultures and environments other than those of Japan, and 2) provide them with opportunities to attend classes, interact with local students, and participate in discussions with them. Between February and March 2020, the University was to send 118 students to overseas partner universities in five countries and regions on one of five courses. However, these plans had to be canceled due to the novel coronavirus pandemic. Nevertheless, the University subsequently provided on-campus online educational opportunities equivalent to its study-aboard programs (including classes) on request. The University will continue to employ the preceding measures to achieve its START/START+ Programs' original aim of helping students develop an interest in interacting with people of other countries and participating in long-term study-abroad programs.

In addition, to help its undergraduate and graduate schools meet various student needs for short-term study-abroad programs, seeing that it had an adequate school budget allocable to developing a new system for helping students participate in specialized short-term study-abroad programs designed and administered by their undergraduate or graduate school, the University made an internal open call for programs to select ones to financially support. (In AY 2019, the University decided to help students planning to study abroad on three different programs by covering travel costs; however, eventually, it could only do so for six students comprising one of the three programs since the other two had to be canceled because of the coronavirus.)

iii) Restructuring and expanding Morito Institute of Global Higher Education

Hiroshima University Morito Institute of Global Higher Education 3 + 1 Program welcomes from countries worldwide senior undergraduate students looking to pursue a graduate school education, and provides them with three terms of specialized education and Japanese language lessons so that they can meet their own university's criteria for being awarded a bachelor degree, before subsequently proceeding to one of the University's graduate schools to develop into highly specialized experts in their field of interest. Efforts regularly put into promoting the program led to a steady increase in the number of participants as follows: 26 in AY 2016, 90 in AY 2017, 146 in AY 2018, and 159 in AY 2019 (or an increase of 13 from that of the preceding academic year). In AY 2020, the program received 162 applications (as of April). In addition, after having completed the program, a good number of the senior-undergraduate participants generally enroll in a Master's program at the one of the University's graduate schools as follows: 14/24 in AY 2016, 26/63 in AY 2017, 36/105 in AY 2018.

To create an organization that can function as a base for providing Japanese language and culture education, as well as an office for welcoming international students—through which this program could attract more international students—in October 2018, the University transformed the International Center into the Hiroshima University Morito Institute of Global Higher Education, which has thereafter been putting effort into developing translation and interpretation training programs and also been welcoming various international students, including the following number of visually or hearing impaired students: 8 in AY 2017, 16 in AY 2018, and 8 in AY 2019.

iv) Promoting special Japanese language and culture training programs to attract international students

To attract international students interested in the Japanese language and Japanese culture, the University promoted approximately two-week long inbound programs designed to help participants deepen their understanding of the Japanese language and Japanese culture through classes taught on campus, interactions with Hiroshima University students, and visits to companies and other places in Hiroshima Prefecture.

The University began offering these special training programs in AY 2010, and every year since then, it has been putting effort into increasing the number of program types and participants. In AY 2019, the University targeted South Korean students for the first time and succeeded in welcoming 18 participants. In addition, with help from the government of Egypt, the University welcomed 103 international students from Egypt, of whom 73 studied medicine while 30 attended lessons on the Japanese language and Japanese culture. However, last winter, a number of training programs that were to welcome international students from China had to be canceled due to the novel coronavirus, which reduced the number of Chinese international students to 183 on 8 courses (i.e., a decrease of 107 participants, compared to the 290 who participated in AY 2018).

In AY 2017, the University incorporated special needs education into its training programs for the first time when it welcomed eight international students with hearing impairments. In AY 2019, eight Chinese international students with visual impairments also participated in its training programs that incorporate special needs education.

v) Improving and expanding overseas bases

The number of overseas bases established by AY 2018 was 20 (set up in 15 countries/regions). This number was subsequently increased to 22 (in 15 countries/regions by the end of AY 2019) after the addition of the Hiroshima University Munster Center, established in May 2019 at the University of Munster in Germany, and the Hiroshima University Mexico Center, established in September of the same year at the National Autonomous University of Mexico in Mexico City.

These centers subsequently added are second bases set up to help the bases previously established in each country to promote the University's activities in those countries and in neighboring regions.

vi) Concluding interuniversity exchange agreements

Active efforts to conclude interuniversity exchange agreements with universities overseas increased the number of such agreements by 25, from 345 in AY 2018 to 370 in AY 2019. By actively increasing the number of its overseas partner universities, the University aims to stimulate interaction between its students and international students in various countries and also become able to serve as a hub for international joint research.

In AY 2019, as it has before, the University welcomed six student research interns from Harvard University—one of the world's top universities, with which it concluded an interuniversity exchange agreement in AY 2017.

In addition, active efforts put into collaborating with universities overseas, including hosting the 3rd Japan-Mexico Rectors Summit in November 2017 and thereafter maintaining a good relationship with the country, led the University to the honor of serving as the supervisor of Japanese participants at the 4th Japan-Mexico Rectors Summit, held in Mexico in September 2019. A total of 61 universities, comprising 23 Japanese and 38 Mexican universities, attended the 4th Japan-Mexico Rectors Summit and strengthened their relationships.

In addition, in October 2019, the University served as the Secretariat in jointly hosting the 5th Japan-Indonesia Rectors Summit with 10 national universities in the Chugoku-Shikoku region. The Summit welcomed about 150 representatives from 32 Japanese and 37 Indonesian universities and institutions, who shared their ideas on possibilities for cooperation in education, research, and industry-academia-government collaboration projects, under the theme of "Creating sustainable and peaceful communities through collaboration in education and research."

vii) Promoting medium- and long-term student exchange programs

To promote medium- and long-term credit-recognition student exchange programs with universities in Asia, efforts of the following sort are being made: 1) a bilateral student exchange program titled "PEACE Student Exchange Program," which began to be implemented as one of the Ministry of Education, Culture, Sports, Science and Technology's Projects to Promote Globalization of Universities in AY 2016 and annually exchanges about 50 students with universities in Cambodia, Myanmar, Laos, Vietnam, and Thailand; 2) a bilateral student exchange program titled "International Linkage Degree Program for Developing Innovators Transforming Advanced Technology to Social Goals," which began in AY 2017 and annually exchanges about 36 students with universities in India; and 3) a student exchange program titled "ASEAN International Mobility for Students-Hiroshima University," which was funded by subsidiaries until AY 2017 but is now operated with funds from the University budget.

To meet the needs of students at various skill levels, the following medium- and long-term student exchange programs came to be offered in AY 2019: 1) a credit-recognition exchange program titled "Hiroshima University Study Abroad Program," offered with help from partner universities; 2) medium- and long-term exchange programs offered with help from the University's affiliated inter-university consortiums, including the University Study Abroad Consortium and the University Mobility in Asia and the Pacific; and 3) student exchange programs for research purposes, offered with help from top universities in the U.S., including the University of California, San Diego.

AY 2019 plan [31]	To respond to the advancement of globalization, in accordance with the University's Teacher Deployment Policy, take the following personnel deployment measures: 1) increase the percentage of instructors who hold international citizenship or have taught or conducted research abroad to about 41.6% and 2) increase the percentage of staff members with international citizenship or international work experience to about 6.6% by employing international citizens or sending staff abroad for training.

[AY 2019 plan progress status]

- Personnel deployment measures ① to ③, aimed at responding to the advancement of globalization and strengthening school/office functions, increased the percentage of instructors who hold international citizenship or have taught or conducted research abroad by 0.9% compared to last academic year, surpassing the targeted 41.6%, to 42.5%, as of May 1, 2020.
  - ① Made all calls for job applicants open internationally, in order to recruit instructors with excellent teaching and research skills
  - ② Continued to reserve positions for international applicants under the newly submitted personnel deployment proposal and strategically offered 84 positions to employ globally competitive workers
  - ③ Revised the Teacher Deployment Policy to incorporate short-term positions reserved for international instructors and hired five instructors able to help increase the University's research capacity and improve its international recognition
- Two staff members helped increase the percentage of staff members with international work experience by completing overseas training—one on the Ministry of Education, Culture, Sports, Science and Technology's Long-term Educational Administrators Program and another on the Japan Society for the Promotion of Science's International Academic Exchange Training—on which two more staff members will be embarking next academic year, respectively. Consequently, the percentage of staff members with international citizenship or work experience increased by 0.1% compared to last academic year, surpassing the targeted 6.6%, to 7.8%, as of May 1, 2020.

AY 2019 plan [32]	Regarding the undergraduate and graduate courses that were taught in Japanese in AY 2020, change some of them to being taught in foreign languages to increase the percentage of undergraduate/graduate courses taught in foreign languages to about 30%. In addition, begin offering level-based Japanese language classes, and keep track of fluctuations in the number of international participants; subsequently, conduct student class evaluations, and improve curricula, based on evaluation results.

[AY 2019 plan progress status]
- Efforts by the Headquarters for Education's Academic Affairs Committee, aimed at increasing the number of graduate-school degree programs entirely offered in English, produced the following results: 1) encouraged the establishment of four more programs in AY 2019, increasing the total to 73; 2) welcomed more faculty members to the faculty development program titled "How to Teach Classes in English," bringing the total number of participants since AY 2016 to 355; and 3) surpassed the target of undergraduate and graduate courses taught in foreign languages, set by the University for AY 2019 at 19.2%, increasing this percentage to 33.9% (or 5,071/14,964 courses), as of the end of AY 2019.

i) Offering skill-enhancement seminars for overseas Japanese language teachers
To help improve the level of Japanese language education overseas, the Hiroshima University Morito Institute of Global Higher Education aims to become a Japanese language and culture education base able to help overseas Japanese language teachers enhance their skills. In July 2019, the University held an Overseas Japanese Language Teacher Skill-enhancement Seminar, to which it welcomed 16 overseas Japanese language teachers (comprising 14 from China and 2 from Indonesia) and helped them grow into advanced specialists. The seminar primarily focused on helping participants individually improve their Japanese language teaching and language analysis skills. It also offered opportunities to observe lessons being given by other teachers, workshops for instructors teaching at universities in the Chugoku-Shikoku area, and lessons designed to help participants enhance their Japanese language skills, Japanese language teaching and language analysis skills.

ii) Providing Japanese language education online [Project No. 32]
The University provided international students with Japanese language education online to stimulate the restructuring of the Hiroshima University Morito Institute of Global Higher Education. To facilitate the smoother enrollment of international students in classes matching their Japanese language proficiency, in AY 2019, the University developed an online placement test system to assess such students' proficiency before they arrived in Japan, and the first to be administered the test were those who arrived in April. In addition, user IDs for the Online Anytime Access Japanese Education (MyJT) system, developed around the end of AY 2016, were assigned to international students with priority on securing as much time as possible for those indicated by the online placement test as being between the entry and intermediate levels, in order to improve their Japanese language skills.
Measuring international students' Japanese language proficiency levels prior to their arrival in Japan helped the University increase the effectiveness of its Japanese language education to levels unachievable otherwise, by enabling it to assign students to classes properly, provide them with useful instructions in advance, and help them improve their Japanese language skills through self-study before arriving in Japan. In AY 2019, the MyJT system helped 163 international students—primarily comprising online placement test takers indicated by the test as being between the 1st and 3rd levels—maximize their Japanese language self-study efforts by providing them with helpful e-learning programs.

AY 2019 plan [34]	Use rental dormitories to promote a Japanese- and international-student share-house program aiming at a Japanese-student participation rate of about 12%.

[AY 2019 plan progress status]
- The University surpassed its target rate by equipping dormitories with move-in and everyday life support functions for international students and informing Japanese students of opportunities to share houses with international students, securing a Japanese-student participation rate of 12.2% (1,682/13,775), as of November 1, 2019.

Medium-term goal [20]	Make organizational changes that strengthen the President's leadership to enable the University to strategically distribute its resources by using its IR indicators.
AY 2019 plan [46]	Strategically assign personnel under the President's leadership by using the University's Achievement-motivated Key Performance Indicators (AKPIs)—which show faculty members' levels of performance as instructors and researchers—and subsequently, assess whether the newly employed assignment strategy worked to the University's advantage and, if necessary, develop an improvement plan for the following academic year.

[AY 2019 plan progress status]
- Under the guidance of its Central Personnel Committee, organized under the President's authority, the University used its IR indicators—the Achievement-motivated Key Performance Indicators (AKPIs), which show faculty members' levels of performance as instructors and researchers, as well as the Basic Effort Key Performance Indicators (BKPIs)—to assign personnel strategically and systematically from a University-wide perspective that transcends individual education and research organizations.
- In addition, it enhanced workforce diversity particularly by employing or cultivating talented young, female, and international instructors, and also improved the balance of its academic ranks across different age groups particularly by appointing younger instructors as associate professors, lecturers, and assistant professors.
- Out of a total of 309 personnel assignment requests it received from schools/offices in AY 2019, the University has so far strategically responded to 224 (as of March 31, 2020).
- In addition, in AY 2019, it introduced a University Promotion System and announced 30 strategically-decided promotions (comprising 13 school/office-recommended promotions and 17 self-recommended ones).
- The University decided to change its governance system to one under which all matters from personnel assignment to candidate screening are subject to discussion by the Academy Council and the Central Personnel Committee before eventually being decided by the President; the system is designed as follows: the Personnel Committee develops the University's Teacher Deployment Policy, based on which the Academy Council formulates the University's Medium- and Long-term Instructor Assignment Plan, consequently centralizing the process of conducting personnel screenings and making decisions on whether to continue employing current faculty members under the President's leadership. In addition, to help Academy Council members in charge of formulating instructor assignment plans interpret instructor-performance data with greater ease, the University developed a system for visualizing the data.

Medium-term goal [21]	Improve the faculty members' international competitiveness to levels that will raise the quality of the University's education and research efforts to internationally competitive levels.
AY 2019 plan [47]	Improve the University's chances of attracting more talented instructors from regions throughout Japan and around the world, and to do so, increase the percentage of instructors paid under the annual salary system to about 18.6% by promoting the flexibility of the human resources and salary system (e.g., the annual salary and cross-appointment systems).

[AY 2019 plan progress status]

- In December, in order to reflect instructors' performance evaluation results in their compensation, the University formulated a number of new rules in its annual instructor salary system (which came into effect in April 2020), and to do so, it underwent the following process: 1) to reform its human resources and salary management systems, the University set up a working group, appointed to develop a new annual salary system, under the Executive Board; and 2) the group held a number of University-wide thought-sharing sessions, based on which—as well as the Ministry of Education, Culture, Sports, Science and Technology's guidelines—it compiled a report titled "On the Development of a New Salary System for the University's Instructors (Report)" and formulated the new rules based on it. With job offers no longer being made under the old rules, once the new rules came into effect on April 1, 2020, the percentage of instructors—including those specially appointed—paid under the new annual salary system far surpassed the targeted 18.6%—despite being 3% lower than that for the previous academic year, which was 20.4%, as of March 31, 2020. Of those paid under the new annual salary system, the percentage of instructors who have been on the faculty since before the incorporation of national universities totaled 20.6% (1.1% lower than that for the previous academic year).
- To promote cross appointments between the University and institutions overseas, the University decided to generally conclude all labor-cost point-based employment contracts with short-term international instructors under the cross-appointment system. Consequently, the number of such instructors totaled 22, comprising 6 overseas- and 16 domestic-institution contracts, as of March 31, 2020, surpassing last year's 18 (which comprised 11 domestic- and 7 overseas-institution contracts).
- To promote cross appointments even further, the University recategorized the job titles "Joint Research Seminar Instructor" and "General Staff Member" as positions to be offered under the cross-appointment system from April 2020.

AY 2019 plan [48]	Invigorate the University's education and research efforts by instituting measures in accordance with its Teacher Deployment Policy to employ more talented young instructors (under the age of 40) and thereby increase the percentage of such instructors to 32% (including 20.1% eligible for subsidies for severance pay).

[AY 2019 plan progress status]

- To invigorate its education and research efforts, as well as the academic world in general, by employing young instructors and helping them grow, the University has a number of positions reserved under the job title "Assistant Professor Trainee" (35 years of age and younger), and in AY 2019, it employed 53 assistant professor trainees and screened 51 applicants for such positions to be taken up in AY 2020. In addition, by instituting measures in accordance with the Teacher Deployment Policy, the University secured 25.5 points, which enabled the University to employ 51 young instructors from AY 2021.
- As part of the Ministry of Education, Culture, Sports, Science and Technology's Scientific Technology Human Resource Cultivation Consortium Development Project, in AY 2019, the University employed six young instructors and also announced two open calls for employing instructors to join in AY 2020.
- As part of the Ministry of Education, Culture, Sports, Science and Technology's Leading Initiative for Excellent Young Researchers, in AY 2019, the University employed one young instructor and also decided to announce two open calls for employing instructors for tenure track positions to be taken up in AY 2020.
- Consequently, the percentage of full-time instructors serving in tenure track positions increased (1.8% compared to last academic year) to 17.7%, as of March 31, 2020.
- In addition, the percentage of full-time instructors under the age of 40—despite falling short of the targeted 32%—increased (by 1.6% compared to last academic year) to 24.7%, (including a total of 22.8% eligible for subsidies for severance pay) as of March 31, 2020.
- To achieve its medium-term goal, the University will make the following efforts.
  ① More assistant professor trainees will be employed.
  ② About 70% of new employment opportunities will be reserved for instructors under the age of 40.
  ③ Hiroshima University Hospital will increase the number of its assistant professor trainee positions.
  ④ The special purpose reserve fund will be used to employ more young instructors.
  ⑤ Under the University's unified decision-making system for the employment and assignment of teachers and in accordance with the University's Teacher Deployment Policy, priority will be given to teacher deployment requests that require handing over positions to young instructors, and measures will be taken to ensure for them medium- to long-term employment by guaranteeing employment under the University's tenure-track system (term: 5 to 7 years).

Medium-term goal [23]	Promote a better work-life balance for faculty and staff, and actively promote women to decision-making positions in University management.
AY 2019 plan [51]	Employ measures in accordance with the Teacher Deployment Policy to increase the percentage of female instructors to about 17.6%, and female managers to about 16.5% and thereby promote active female faculty/staff workforce participation.

[AY 2019 plan progress status]

- The percentage of female instructors surpassed the targeted 17.6%, totaling 18% (a 1.0% increase compared to the previous academic year), as of the end of March 2020.
- Recognizing the importance of employing female instructors as one of its deployment policies on securing diverse workers, under the University's unified decision-making system for the employment and assignment of teachers, the University continued to reserve positions for female instructors under the newly submitted personnel deployment proposal, and strategically offered 42 positions. In addition, as part of the Ministry of Education, Culture, Sports, Science and Technology's Scientific Technology Human Resource Cultivation Consortium Development Project, the University continued to publicly offer positions reserved for female instructors.
- As it did in the previous academic year, in AY 2019, the University implemented an affirmative action policy in employing instructors (i.e., it specified that in cases where both genders demonstrate equivalent achievements, the decision would be in favor of the female applicant). In addition, the University kept track of the numbers of existing and newly hired female instructors and reported these to the Education and Research Council every quarter.
- At the Female Researcher Participation Promotion Committee, in addition to setting its female-instructor target rates for its third medium-term plan, as well as its plan to be implemented as part of the Ministry of Education, Culture, Sports, Science and Technology's Initiative for Creating More Diversified Research Environments (Pioneering) Project, the University shared ideas with committee members on actively promoting the employment of female researchers and also asked for help in creating a pool of talented female researchers.
- The University announced its interest in using the Career Advancement Project (CAP)'s Research Fellow Program—offered by the Ministry of Education, Culture, Sports, Science and Technology as part of its Initiative for Creating More Diversified Research Environments (Pioneering) Project—to employ female researchers with PhDs and in need of employment as full-time researchers. In addition, the University announced its interest in using the CAP's Research Fellow Program to encourage researchers who may have had to retire due to their spouse's work to resume their own careers, and requested its faculty members to inform it if their spouse fits the above description, offering to employ him/her as a part-time researcher.
  Consequently, the University employed one full-time researcher.
- The percentage of female managers surpassed the targeted 16.5%, totaling 17.3% (a 2.2% increase, compared to last academic year), as of March 31, 2020.
- Aiming to increase the percentage of female managers (i.e., Professors and Associate Professors), in AY 2019, the University created a new promotion category titled "Positions Reserved for Females" and added it to its internal promotion application, which led to the promotion of three female instructors to management positions.
- In accordance with the stipulations in the Hiroshima University Gender Equality Declaration, which specifies one of its basic action plans as being "promotion of gender equality in the decision making process regarding administration of the University," the University kept track of the number of female members participating in each of its meetings, committees, boards, and councils, announced them on the Gender Equality Promotion Office's website, and instructed the Chairs of those meetings, committees, boards, and councils to ask more female faculty and staff to join their organizations in AY 2020.
- As part of the Ministry of Education, Culture, Sports, Science and Technology's Initiative for Creating More Diversified Research Environments (Pioneering) Project, on August 29, 2019, the University held a SDGs seminar titled "Examining the Sustainability Possibilities of Organizations in Japan from the Perspective of the SDGs," thereby helping participants find out about the SDGs.
- Also as part of the Ministry of Education, Culture, Sports, Science and Technology's Initiative for Creating More Diversified Research Environments (Pioneering) Project, on September 27, 2019, the University held an interim symposium titled "Cultivating Globally Competitive Female Researchers with Deep Roots in Their Own Communities," where participating organizations shared their efforts aimed at helping female researchers become more globally competitive, inspiring one another.
- On February 19, 2020, at a meeting of the University's affiliated Industry-Academia-Government Council on Promoting Diversity, the University conducted a workshop on the theme of "Positive Differences Made by Having Women Participate in the Decision-making Process," and introduced participants to a number of examples.

○ Details of individual items

I Business operation and financial status
(1) Business operation improvement and optimization goals
① Organizational management improvement goals

Medium-term goals	[19] Maximize the strengths and features of the University to develop an effective and transparent administrative system that will maximize its education and research functions. [20] Make organizational changes that strengthen the President's leadership to enable the University to strategically distribute its resources by using its IR indicators. [21] Improve the faculty members' international competitiveness to levels that will raise the quality of the University's education and research efforts to internationally competitive levels. [22] Have staff members develop expertise that will enable them to provide faculty members with greater help for their education and research efforts [23] Promote a better work-life balance for faculty and staff, and actively promote women to decision-making positions in University management.

Medium-term plan	AY 2019 plan	Progress		Descriptions and explanations (of plan implementation)	
		Mid-term	AY	Plan implementation by AY 2019	Plans to be implemented in AY 2020 and 2021
[44] Gain a broad perspective from which to autonomously improve business operations, and to do so, seek help from external members of the Administrative Council, including international council members, by asking them to share their ideas on the University's operations; subsequently, before incorporating council members' ideas into the University's operations, present them to the President and the University's Deans/directors for screening.		IV		(Overview of AY 2016 to AY 2018 plan implementation) To strengthen the features and characteristics of its schools/offices by resolving underlying issues in ways that will enhance the quality of its education and research efforts, every year since AY 2008, the University has been putting effort into increasing the effectiveness of its PDCA cycles with the help of external stakeholders in asking Deans/Directors for assessments of the progress made at their schools/offices in resolving issues underlying them. In addition, the University asked its students and young instructors and external members of the Administrative Council to come together to share ideas with it, and subsequently incorporated particularly productive ones into its operations.	The University will continue to take the following actions to increase the effectiveness of its PDCA cycles: 1) ask external stakeholders to share their ideas on its operations and present their ideas to the President and Deans/Directors for screening before incorporating them into the University's operations, and 2) seek help from its third-party Evaluation Committee in asking Deans/Directors for assessments of progress made at their schools/offices in resolving issues underlying them.
	[44] To increase the effectiveness of its PDCA cycles, ask external stakeholders (including at least one external member of the Administrative Council) to share their ideas on the University's operations and present their ideas to the President and Deans/Directors for screening before incorporating them into the University's operations, and also seek help from the University's third-party Evaluation Committee in asking Deans/Directors for assessments of progress made at their schools/offices in resolving issues underlying themes.		IV	(AY 2019 plan implementation) [44] In preparation for evaluating its AY 2020 third-medium term operational performance, the University needed to restructure its evaluation system, and to do so, in evaluating the AY 2019 performance of its schools/offices, the University performed a pilot test of its new evaluation method. The University's schools/offices prepared School/Graduate School Status Reports (on AY 2016 to AY 2018) and asked external stakeholders to review them, before subsequently submitting them to the National Institution for Academic Degrees and Quality Enhancement of Higher Education. Subsequently, based on the external stakeholders' feedback, schools/offices improved their operations, which reflected improvements in the University's operational performance evaluation. In addition, the University incorporated into its operations the following particularly productive ideas, contributed during a thought-sharing session by students at two graduate schools newly established in April 2019 by school reorganization—the Graduate School of Integrated Sciences for Life and the Graduate School of	

				Biomedical and Health Sciences—and external members of the Administrative Council: 1) creating opportunities for students with different academic backgrounds to interact and 2) introducing on-demand classes to help students fit more time for research into their schedules.	
[45] Take the following actions to strengthen the University's governance system: 1) Review and revise the University's decision-making process; and 2) have the President and auditors regularly hold meetings to enhance communication between themselves and thereby ensure the independence of auditors, investigate the reliability of the auditor support system, and strengthen the functions of auditors.		III		(Overview of AY 2016 to AY 2018 plan implementation) • Under the President's leadership, the University reformed its systems with primary focus on its education and research systems. In addition, to enable itself to administer its operations more efficiently and strategically and also strengthen its risk management system, the University reexamined its administration system and revised its rules. • To enhance communication between themselves, the President and auditors held meetings generally every week to share their thoughts. In addition, to ensure the independence of auditors, the Chairperson of the Evaluation Committee met with the auditors.	The University will continue putting effort into optimizing operations in ways that will strengthen its governance system. In addition, the University will continue to have the President and auditors regularly meet, and also put effort into applying audit report results to its operations and ensuring the independence of auditors.
	[45] Examine the functions of the University's operational organizations, and to strengthen its governance system, revise the functions as necessary. In addition, have the President and auditors regularly meet to apply audit report results to the University's operations, ensure the independence of auditors, investigate the reliability of the auditor support system, and make changes as necessary.		III	(AY 2019 plan implementation) [45] • To optimize its operations and strengthen its governance functions, the University made a number of revisions to its rules relating to its new Graduate School established on April 1 and operational organizations reorganized on the same date. • To enhance communication between themselves, the President and auditors held meetings generally every week to share their thoughts. In addition, to ensure the independence of auditors, the Chairperson of the Evaluation Committee met with the auditors.	
[46] Assign personnel strategically in ways that will strengthen the University's education and research efforts, and to do so, develop a system that can centralize the management of instructor labor costs—currently managed by individual schools/offices—by using the University's IR indicators, including the Achievement-motivated Key Performance Indicators (AKPIs), which show the faculty members' levels of performance as instructors and researchers. [◆]		III		(Overview of AY 2016 to AY 2018 plan implementation) To ensure that all fields had the number of teachers they needed, in addition to using the Achievement-motivated Key Performance Indicators (AKPIs) and the Basic Effort Key Performance Indicators (BKPIs), each academic year, the University ensured that it was assigning teachers from a University-wide perspective by referring to that year's Teacher Deployment Policy. In addition, to invigorate its education and research efforts, the University employed or cultivated talented young, female, and international instructors in particular, and also improved the balance of academic ranks across different age groups by assigning instructors as associate professors, lecturers, and assistant professors. The total numbers of teacher deployment requests and strategically granted requests are as follows. (AY 2016) Teacher deployment requests: 270; Strategically granted requests: 134 (AY 2017) Teacher deployment requests: 189; Strategically granted requests: 76 (AY 2018) Teacher deployment requests: 462; Strategically granted requests: 203	The University will continue putting effort into strategically assigning personnel under the President's leadership by using the Achievement-motivated Key Performance Indicators (AKPIs)—which show faculty members' levels of performance as instructors and researchers, as well as the Basic Effort Key Performance Indicators (BKPIs)—and by also implementing improvement plans, developed based on assessments of previously employed assignment strategies.

	[46] Strategically assign personnel under the President's leadership by using the University's Achievement-motivated Key Performance Indicators (AKPIs)—which show faculty members' levels of performance as instructors and researchers—and subsequently, assess whether the newly employed assignment strategy worked to the University's advantage and, if necessary, develop an improvement plan for the following academic year.		III	(AY 2019 plan implementation) [46] Refer to "3. Strategic and Ambitious Objectives and Plans" on pp. 15 and 16.	
[47] Improve the University's chances of attracting more talented instructors from regions throughout Japan and around the world, and to do so, increase the percentage of instructors paid under the annual salary system to about 21% by promoting the elasticity of the human resources and salary system (e.g., the annual salary and cross-appointment systems). [◆]		III		(Overview of AY 2016 to AY 2018 plan implementation) To encourage its schools/offices to apply the annual salary system to more teachers/staff, the University revised the system's rules (to enable dividing the annual [or gradational] salary payment into four installments and paying performance-based compensation around bonus payment time) and distributed leaflets explaining these changes. In addition, the University discussed making changes in its salary system—a need arising from its human resources and salary management reform—based on the guidelines provided by the Ministry of Education, Culture, Sports, Science and Technology in February 2019 and information on efforts made at other universities. Leaflets also explaining the cross-appointment system were produced and distributed. In addition, to enable it to enter mutual cross-appointment agreements with universities overseas, the University produced English language versions of its agreement forms. Furthermore, in addition to the job titles to which it initially decided to apply its cross-appointment system—University Instructors and Specially Appointed Instructors—to improve its chances of attracting more talented instructors from regions throughout Japan and the world, the University decided to expand the scope of application to include the following: 1) Researchers, 2) Education and Research Coordination Staff (including coordinators and managers), and 3) Contributing Instructors.	To improve its chances of attracting more talented instructors from regions throughout Japan and the world and thereby achieve its medium-term goal, the University will continue putting effort into steadily increasing the number of instructors paid under the annual salary system by promoting the new annual salary system, which was developed in AY 2019 and came into effect in AY 2020, and the cross-appointment system, as well as the increase in the types of job titles the latter system can now be applied to.
	[47] Improve the University's chances of attracting more talented instructors from regions throughout Japan and around the world, and to do so, increase the percentage of instructors paid under the annual salary system to about 18.6% by promoting the flexibility of the human resources and salary system (e.g., the annual salary and cross-appointment systems).		III	(AY 2019 plan implementation) [47] Refer to "3. Strategic and Ambitious Objectives and Plans" on p. 16.	
[48] Invigorate the University's education and research efforts by offering more positions, strategically including tenure-track ones reserved for talented young instructors (under the age of 40), and by doing so, increase the percentage of such instructors to 34% (including a total of 23.4% eligible for subsidies for		III		(Overview of AY 2016 to AY 2018 plan implementation) • In AY 2016, the University detached all teachers' organizations from its education and research organizations to establish the Academy. In addition, the University decided to centralize the management of instructor labor costs under the President's leadership—instead of having its schools/offices individually manage them—and it also established the Central Personnel Committee under the President's authority and changed the University's governance system to one under which all matters,	To invigorate its education and research efforts, the University will continue putting effort into employing more talented young instructors (under the age of 40)—and thereby increasing the percentage of such instructors—by implementing the plan it developed on January 22, 2018, in accordance with its Teacher Deployment Policy.

severance pay). [◆]				from labor cost management, teacher assignment, and personnel assignment to candidate screening, are subject to discussion by the Executive Board before eventually being decided by the President. Under this new governance system, by using the University's IR indicators, including the Achievement-motivated Key Performance Indicators (AKPI), which show faculty members' levels of performance as instructors and researchers, the Central Personnel Committee strategically and systematically assigns personnel from a University-wide perspective that transcends individual education and research organizations. • To encourage its schools to actively employ more young instructors, the University created an employment category reserved for young instructors (titled in AY 2018 "Assistant Professor Trainees") and also made calls for tenure-track applicants as part of the Ministry of Education, Culture, Sports, Science and Technology's Scientific Technology Human Resource Cultivation Consortium Development Project and its Leading Initiative for Excellent Young Researchers project. • To achieve its medium-term goals, the University made the following efforts. ① More assistant professor trainees were employed. ② About 70% of new employment opportunities were specifically offered to instructors under the age of 40. ③ Hiroshima University Hospital increased the number of its assistant professor trainee positions. ④ The special purpose reserve fund was used to employ more young instructors. ⑤ Under the University's unified decision-making system for the employment and assignment of teachers and in accordance with the University's Teacher Deployment Policy, priority was given to teacher deployment requests that required handing over positions to young instructors, and measures were taken to ensure for them medium- to long-term employment by guaranteeing employment under the University's tenure-track system (term: 5 to 7 years).	
	[48] Invigorate the University's education and research efforts by instituting measures in accordance with its Teacher Deployment Policy to employ more talented young instructors (under the age of 40) and thereby increase the percentage of such instructors to 32% (including 20.1% eligible for subsidies for severance pay).		III	(AY 2019 plan implementation) [48] Refer to "3. Strategic and Ambitious Objectives and Plans" on p. 16.	
[49] Improve human resources by employing, transferring, promoting, and training personnel, based on a staff cultivation plan designed with the aim of achieving the following goals: 1) increase the University's potential to carry out work by clarifying the knowledge and skills required at each of its offices and training staff members based on that		III		(Overview of AY 2016 to AY 2018 plan implementation) • To identify and employ people who truly want to work at Hiroshima University and who have diverse perspectives, since AY 2013, the University has been administering an original staff employment examination, in addition to the Standardized National-University-Staff Employment Examination. In AY 2017, the following changes were made in the University's staff employment system: 1) the number of screening stages were increased from three to four, 2) an aptitude test was introduced, 3) more women were asked to serve as	Efforts will continue to be put into improving the University's human resources by implementing measures to employ, transfer, promote, and train personnel, based on the staff cultivation plan.

information, 2) motivate workers by clarifying career paths and promotion criteria, and 3) increase the staff's productivity potential by providing members with opportunities to experience the handling of difficult work.

interviewers, and 4) high TOEIC scores were incorporated into the screening criteria. In AY 2018, to increase its chances of attracting more applicants by offering screening opportunities conveniently scheduled for those who graduate from college or complete graduate school in months other than March, or who are interested in switching jobs, the University increased the number of such opportunities, which until then were only offered once a year, to three times a year, welcoming various workers on board, including former business people who have done business with companies overseas.

- The personnel evaluation results used at the University as a reference in deciding whether to offer promotions and diligence-based salary raises were based on the management by objectives model. However, in reconsidering this practice, in October 2017, the University partially revised its system to evaluate and base promotion/salary raise decisions regarding managers (i.e., general staff serving in group leader positions) on their responsibilities, skills, and performance.
- To help staff members improve their foreign language skills and cross-cultural understanding, the University offered the following programs designed to help participants develop an extensive knowledge of international exchange and high work-related skills: 1) overseas training programs, 2) skill development training programs (online English conversation), and 3) foreign language training programs (TOEIC preparation). Each program welcomed the following number of participants in the academic years provided below.

	Overseas training programs	Skill development training programs (online English conversation)	Foreign language training programs (TOEIC preparation)
AY 2016	12 to 7 countries	29	14
AY 2017	8 to 11 countries	25	21
AY 2018	9 to 12 countries	41	12

- After completing their programs, overseas training program participants are assigned to the Department of International Affairs, where they continue to receive training so that they can develop the skills needed to help the University become more internationalized.

	[49] Improve human resources by employing, transferring, promoting, and training personnel, based on the staff cultivation plan, and also implement the improvement plan developed in advance based on the assessment of last academic year's efforts.		III	(AY 2019 plan implementation) [49] • The University began administering an original staff employment examination in AY 2013, in addition to the Standardized National-University-Staff Employment Examination, so that it could identify and employ applicants who truly want to work at Hiroshima University and have diverse perspectives. It also increased the number of screening opportunities to four a year in AY 2019 to offer more screenings conveniently scheduled for those who graduated from college or completed graduate school in months other than March or who were interested in switching jobs that year, which led to the employment of 22 diverse workers (comprising 17 working members of society and 5 new college graduates), including former bankers and hospital workers. • To help staff members improve their foreign language skills and cross-cultural understanding, the University offered the following programs, designed to help participants develop an extensive knowledge of international exchange and high work-related skills, welcoming the following number of participants to each program: 1) six from five countries in overseas training programs, 2) 64 in skill development training programs (comprising 52 in TOEIC L & R IP test preparation and 12 in online English conversation), and 3) 13 in foreign language training programs (TOEIC preparation). In addition, last academic year's foreign language training programs were followed by a participant-satisfaction survey, whose results were used to improve this year's programs, helping coordinators in selecting textbooks more suited for participants studying for the TOEIC.	
[50] Create a workplace environment that promotes a good work-life balance by making the University's support systems widely known among the faculty/staff through seminars, and also seek approval by the end of AY 2019 for the University's (third-term) General Business Owner Action Plan under the Act on Advancement of Measures to Support Raising Next-Generation Children.		III		(Overview of AY 2016 to AY 2018 plan implementation) • In AY 2016, the University took the following actions to reduce actual work hours and thereby promote a good work-life balance: 1) first, it identified its workers' overtime work hours by asking staff in charge of keeping track of working hours, 2) then, it introduced modified work schedules that adjusted start and end times, with which it reduced overtime work hours and also encouraged workers to take annual leave. • In AY 2017, the University conducted a survey on its workers' use of its work-life balance support systems and subsequently realized they had the following sort of need: 1) the right to decide whether or not to return after leaving the University due to family reasons—e.g., accompanying one's spouse being transferred overseas—which inspired the University to introduce in April 2018 the Temporary Leave to Accompany Spouse Being Transferred Overseas system; and 2) help in balancing research with life events—pregnancy, childcare, and nursing—which inspired the University to appoint research assistants to follow instructions to help conduct research. • In AY 2018, as part of the Ministry of Education, Culture, Sports, Science and Technology's Initiative for Creating More Diversified Research Environments (Pioneering) Project, the University implemented the following two measures. ① To help the University's researchers balance research with	To maintain a workplace environment that encourages faculty and staff to have a good work-life balance by using its support systems, the University will continue to conduct surveys on the use of its support systems and also put effort into improving these systems based on the survey results. In addition, the University will put effort into developing telework systems that could also be used after the end of the novel coronavirus pandemic.

				life events—pregnancy, childcare, and nursing—the University continued to appoint research assistants to help conduct research, and responded to an annual total of 29 assistance requests (made within the request-acceptance period). ② To keep the door open for researchers married to other researchers at the University in case they want to temporarily leave to accompany their spouse being transferred overseas and subsequently return to resume their career, the University introduced a Career Advancement Project Researcher System, and under it, employed two part-time researchers within its budget.	
	[50] Continue putting effort into maintaining the University's workplace environment that encourages using support systems to improve work-life balance, and also seek approval for the (third-term) General Business Owner Action Plan under the Act on Advancement of Measures to Support Raising Next-Generation Children.		III	(AY 2019 plan implementation) [50] • The University formulated a General Business Owner Action Plan (for the fourth term) and submitted it to Hiroshima Labour Bureau for approval under the Act on Advancement of Measures to Support Raising Next-Generation Children. • Since its (third-term) General Business Owner Action Plan could not be submitted for approval due to the conditions for approval being revised during AY 2019, the University contacted the Labour Bureau to find out what changes it would need to make for the plan to be approved under the Act on Advancement of Measures to Support Raising Next-Generation Children. • The University continued to appoint research assistants to help its researchers balance research with life events and also developed guidelines for screening assistance requests, explaining its point-based system for deciding whether to grant requests. • With preschool education and childcare having become free of charge on October 1, the University informed its faculty, staff, and students via IROHA—its faculty/staff portal site—and University website in both Japanese and English that its on-campus childcare facilities had become available free of charge. • During the National Center Test for University Admissions, the University widely made known the availability of its on-campus nursery facilities—the Himawari Nursery School and Cosmos Nursery Room—and after-school childcare services. • After learning of the temporary closure of all elementary schools nationwide due to the novel coronavirus pandemic, the University temporarily opened its after-school childcare services in the Higashi-Hiroshima and Hiroshima areas from March 5 to March 25, welcoming 12 (out of a total of 113) and 17 (out of a total of 103) children in the Higashi-Hiroshima and Hiroshima areas, respectively. In addition, to help teachers provide elementary school students with education during the temporary closure, as an emergency measure, the University introduced a telework system that enabled working from home.	

[51] Increase the percentage of female teachers and managers to about 20% each by employing measures to promote active female faculty/staff workforce participation. [◆]		III		(Overview of AY 2016 to AY 2018 plan implementation) • Recognizing the importance of employing female instructors as one of its deployment policies on securing diverse workers, under the University's unified decision-making system for the employment and assignment of teachers, the University continued to reserve positions for female instructors on the newly submitted personnel deployment proposal and strategically offered such positions. • The University continued to implement affirmative action in employing instructors (specifying that in cases where both genders demonstrate equivalent achievements, the decision would be in favor of the female applicant), and as part of the Ministry of Education, Culture, Sports, Science and Technology's Scientific Technology Human Resource Cultivation Consortium Development Project, it also continued to publicly call for applicants for positions reserved for female instructors. • In AY 2016, the Deputy Executive Director (Gender Equality) visited the University's schools/offices to share her thoughts with their Deans/Directors on actively promoting women to decision-making positions in University management and agreed to actively assign women primarily to Vice Dean/Director positions and key positions in the University's primary committees. • To help female researchers improve their research skills, actively employ more female researchers, and promote them to top positions, in AY 2017, the Female Researcher Participation Promotion Committee held a meeting and asked the University's Deans/Directors to help its efforts in raising everyone's awareness of the importance of securing talented female instructors, as well as increasing the number of female instructors. • To diversify its human resources by promoting gender equality and the importance of increasing the percentage of female managers, in AY 2018, when it began developing a new internal promotion system to be introduced in AY 2020, the University added the category "Positions Reserved for Females" to the proposal it submitted for approval, and subsequently began calling for applicants.	The University will continue to put effort into implementing measures in accordance with its Teacher Deployment Policy to increase the percentage of female instructors and managers and thereby promote active female faculty/staff workforce participation. In addition, the University will keep track of the percentage of female instructors it newly employs, and—with the aim of raising the awareness of its faculty, staff, and students of the importance of female instructors—it will announce such percentages on a quarterly basis through the Education and Research Council.
	[51] Employ measures in accordance with the Teacher Deployment Policy to increase the percentage of female instructors to about 17.6%, and female managers to about 16.5% and thereby promote active female faculty/staff workforce participation.		III	(AY 2019 plan implementation) [51] Refer to "3. Strategic and Ambitious Objectives and Plans" on p. 17.	

I Business operation and financial status
(1) Business operation improvement and optimization goals
② Education and research organization improvement goals

Medium-term goals	[24] Identify the trends and social needs of 18-year-olds and then, based on these, reorganize the University's education and research organizations in ways that will strengthen the University's functions and enable it to maximize its capabilities and strengths.

Medium-term plan	AY 2019 plan	Progress		Descriptions and explanations (of plan implementation)	
		Mid-term	AY	Plan implementation by AY 2019	Plans to be implemented in AY 2020 and 2021
[52] Identify social needs and then, based on them and the University's redefined mission statement, promote education and research in ways that maximize the University's capabilities and strengths, reorganize its education and research organizations, and reset its enrollment limits by detaching teachers' organizations from education and research organizations so as to reorganize them into a flexible association that will enable strategic assignment of teachers to areas that the University has decided to prioritize.		IV		(Overview of AY 2016 to AY 2018 plan implementation) To assign instructors strategically to areas that it had decided to prioritize, based on its redefined mission statement and the social needs it identified, in April 2016, all teachers' organizations were detached from education and research organizations and unified to form a teachers' association referred to as the Academy. In addition, the School of Education, Graduate School of Education, and the Hiroshima University Law School reset their enrollment limits. With the aim of establishing in April 2018 the School of Informatics and Data Science (provisional) and the School of Integrated Arts and Sciences (including the Department of Integrated Global Studies [provisional]), in 2016, the University began discussing matters relevant to this aim with the Ministry of Education, Culture, Sports, Science and Technology. Subsequently, the University submitted its plan for establishing the School of Informatics and Data Science and an inquiry into establishing the School of Integrated Arts and Sciences (including the Department of Integrated Global Studies) on March 23, 2017, and April 26, 2017, respectively, and then, after receiving approval, established them on April 1, 2018. The University also submitted an inquiry about reorganizing the School of Engineering on April 26, 2017, and then, after receiving approval, reorganized it on April 1, 2018. In AY 2015, working groups appointed to study ideas for reorganizing graduate schools in ways that will enable them to strengthen their functions compiled and presented reports of the following sort: 1) reports on ideas for reorganizing graduate schools offering science and engineering programs were compiled and presented in March 2017, and 2)reports on ideas for reorganizing graduate schools offering humanities and social science programs and interdisciplinary programs were compiled and presented in May 2017. Based on these reports, the University redefined its graduate schools' mission statement as creating new knowledge and value that can help build a sustainable and peaceful pluralistic society and cultivating people able to come up with new innovations, and to help itself meet its mission, it organized a number of guidelines into a policy titled "Basic Policy for Restructuring Hiroshima University's Graduate Schools." To reorganize in April 2020 its six graduate schools offering humanities and social science programs and interdisciplinary programs into a new graduate school provisionally titled the	The University will continue to maximize its capabilities and strengths to execute its plan aimed at establishing the Graduate School of Future Cutting-edge Science (i.e., an education and research organization able to also serve as a center for coordinating cross-graduate school programs) and resetting enrollment limits. In addition, to strengthen the functions of its education and research organizations in offering humanities and social science programs, science programs, engineering programs, and interdisciplinary programs, the University will continue to put effort into establishing the Graduate School of Humanities and Social Sciences and Graduate School of Advanced Science and Engineering. Furthermore, it will put effort into developing an evaluation system for assessing the Graduate School of Humanities and Social Sciences, Graduate School of Advanced Science and Engineering, School of Informatics and Data Science, and Department of Integrated Global Studies, School of Integrated Arts and Sciences, with the aim of developing it by the time these graduate schools and schools welcome students to every grade they plan to offer.

				Graduate School of Humanities and Social Sciences, as well as its five graduate schools offering science and engineering programs into a new graduate school provisionally titled the Graduate School of Advanced Science and Engineering, before discussing relevant matters with the Ministry of Education, Culture, Sports, Science and Technology, the University took the following actions in accordance with its Basic Policy for Restructuring Hiroshima University's Graduate Schools: 1) set up in May 2017 committees for preparing to establish the Graduate School of Humanities and Social Sciences (provisional) and the Graduate School of Advanced Science and Engineering (provisional); 2) reviewed the functions and reset the enrollment limits of the University's graduates schools offering humanities and social sciences programs, interdisciplinary programs, and science and engineering programs; and 3) assigned instructors strategically, under the University's unified decision-making system for the employment and assignment of teachers, to areas that it had decided to prioritize. In addition, in July 2018, the University established a committee for preparing to establish the Graduate School of Future Cutting-edge Science (provisional) with the aim of developing an education and research organization that can help all other graduate schools also strengthen their functions.	
	[52] Continue to take action to establish the education and research organization (i.e., the Graduate School of Future Cutting-edge Science) designated to serve as a center for strengthening the functions of all graduate schools, and reset enrollment limits in ways that will maximize the University's capabilities and strengths. In addition, prepare to establish the Graduate School of Humanities and Social Sciences (provisional) and the Graduate School of Advanced Science and Engineering (provisional)—education and research organizations aiming to strengthen the University's functions of offering humanities and social science programs, science programs, engineering programs, and interdisciplinary programs.		IV	(AY 2019 plan implementation) [52] To establish the Graduate School of Humanities and Social Sciences to strengthen its functions of offering humanities and social science programs, as well as interdisciplinary programs, and also establish the Graduate School of Advanced Science and Engineering to do the same with its science and engineering programs, on April 25, 2019, the University submitted an inquiry concerning these plans to the Ministry of Education, Culture, Sports, Science and Technology, subsequently received approval on August 23, 2019, and established the graduate schools in April 2020. Furthermore, the University submitted a plan to establish its first international joint degree programs—the Hiroshima University-University of Graz International Joint Social Sciences Master's Program in the Graduate School of Humanities and Social Sciences, and the Hiroshima University-Leipzig University International Joint Science and Engineering Master's Program in the Graduate School of Advanced Science and Engineering—to the Ministry of Education, Culture, Sports, Science and Technology on August 22, 2019. Subsequently, on December 18, 2019, it received approval for establishing the following programs in October 2020: 1) the Hiroshima University-University of Graz International Joint Sustainable Development Master's Program in the Graduate School of Humanities and Social Sciences and 2) the Hiroshima University-Leipzig University International Joint Sustainable Development Master's Program in the Graduate School of Advanced Science and Engineering.	
[53] Establish education and research organizations that maximize the University's proven, unique life and biological education and research resources.		III		(Overview of AY 2016 to AY 2018 plan implementation) Working groups formed on August 9, 2016 to study ideas for reorganizing and thereby strengthening the functions of the University's graduate schools offering life and biological science programs, compiled and presented productive reports in March 2017. Based on these reports, in May 2017, the University redefined its graduate schools' mission statement as creating new knowledge and value that can help build a sustainable and peaceful pluralistic	The University will put effort into developing an evaluation system for assessing the doctoral programs of the Graduate School of Integrated Sciences for Life and the Graduate School of Biomedical and Health Sciences, with the aim of developing it by the time they welcome students to every grade

				society and cultivating people able to come up with new innovations, and to help itself meet its mission, it organized a number of guidelines into a policy titled "Basic Policy for Restructuring Hiroshima University's Graduate Schools." To reorganize in April 2019 its five graduate schools offering life and biological science programs and medical science programs into new graduate schools provisionally titled the Graduate School of Integrated Sciences for Life and the Graduate School of Biomedical and Health Sciences to strengthen its functions of offering life and biological science graduate programs, before discussing relevant matters with the Ministry of Education, Culture, Sports, Science and Technology, the University took the following actions in accordance with its Basic Policy for Restructuring Hiroshima University's Graduate Schools: 1) set up on May 16, 2017 a committee to prepare to establish the Graduate School of Integrated Sciences for Life and a committee for discussing the future of the Graduate School of Biomedical and Health Sciences; 2) reviewed the functions and reset the enrollment limits of the University's graduate schools offering life and biological sciences programs and medical science programs; and 3) assigned instructors strategically, under the University's unified decision-making system for the employment and assignment of teachers, to areas that it had decided to prioritize. Subsequently, on April 26, 2018, the University submitted an inquiry to the Ministry of Education, Culture, Sports, Science and Technology about establishing the Graduate School of Integrated Sciences for Life and the Graduate School of Biomedical and Health Sciences, and received approval on August 20, 2018, to establish the graduate schools in April 2019.	they plan to offer. In addition, regarding their Master's programs, which have welcomed students to the grades they offer, the University will assess them by comparing students' achievements with the programs' originally set objective criteria, including the type of people the programs promise to cultivate.
	[53] Establish the Graduate School of Integrated Sciences for Life and the Graduate School of Biomedical and Health Sciences—education and research organizations aiming to strengthen the University's functions of offering life and biological science programs.		III	(AY 2019 plan implementation) [53] To strengthen its functions of offering life and biological science programs and do the same with its medical science programs, on April 1, 2019, the University established the Graduate School of Integrated Sciences for Life and the Graduate School of Biomedical and Health Sciences, respectively. On July 20, 2019, to mark the establishment of the Graduate School of Integrated Sciences for Life and Graduate School of Biomedical and Health Sciences, the University held a ceremony and reception, during which a Nobel Prize winner gave a lecture, helping the representatives of both graduate schools enhance their knowledge.	
[54] Reorganize the Graduate School of Education by the end of AY 2016 to include a new program titled the Professional Development Program for Teachers and School Leaders (i.e., Graduate School of Education) to respond to present-day educational issues, including those underlying teacher training programs and the demand for various workers. In addition, after the program welcomes students to every grade it plans to offers, evaluate it by comparing students' achievements with the program's originally set objective criteria, including the goals		IV		(Overview of AY 2016 to AY 2018 plan implementation) On April 1, 2016, the University established the Graduate School of Education's Professional Development Program for Teachers and School Leaders (i.e., Graduate School of Education). At the end of January 2017, the University released its AY 2016 internal evaluation report on the Professional Development Program for Teachers and School Leaders. In March, the University and stakeholder boards of education—the Hiroshima Prefectural Board of Education, the Hiroshima City Board of Education, and the Higashi-Hiroshima City Board of Education, which together comprise a Four-party Liaison Council—evaluated the Professional Development Program for Teachers and School Leaders and shared their thoughts. In October 2018, after the Teacher Recruitment Examination results were announced, the Professional Development Program for Teachers and School Leaders Committee held a meeting to assess the	The University will establish the Graduate School of Humanities and Social Sciences' Professional Development Program for Teachers and School Leaders (i.e., Graduate School of Education) with an increased enrollment limit. In addition, the University will take the following actions in accordance with the Graduate School of Education's self-evaluation accreditation report and the Institute for the Evaluation of Teacher Education's certified evaluation results: 1) develop strategic measures to maintain and improve the educational quality of the Professional

described in its curriculum, the type of people it promises to cultivate, and the graduate employment rate.				examination pass rates by comparing them with the program's target rate. In February 2019, the University, stakeholder boards of education, and partner-school representatives, who together comprise a Collaborative Partner School Liaison Council, held a meeting to evaluate and share their thoughts on ways to improve the program's curriculum and instructors' teaching methods. In February 2019, the University, stakeholder boards of education, and partner-school representatives held three meetings—an action research presentation session, a research findings briefing, and a public evaluation session—and evaluated the program's research projects and shared their thoughts on ways to improve them. In addition, after evaluating the Professional Development Program for Teachers and School Leaders based on the achievements of those who completed the program, by comparing them with the program's original objective criteria, including the goals described in the curriculum, the types of people it promises to cultivate, and the graduate employment rate, the University began discussing with the Ministry of Education, Culture, Sports, Science and Technology matters relating to establishing in April 2020 another Professional Development Program for Teachers and School Leaders (i.e., Graduate School of Education) in the Graduate School of Humanities and Social Sciences.	Development Program for Teachers and School Leaders (i.e., Graduate School of Education) and help it to continue developing uniquely and 2) set goals for the 4th medium term (indicating the order of priority).
	[54] Compile a report on the assessments that the members of the working group—comprising the University, stakeholder boards of education, and partner-school representatives—offered during the meeting on the evaluation results of the curriculum offered last academic year by the Professional Development Program for Teachers and School Leaders (i.e., Graduate School of Education).		IV	(AY 2019 plan implementation) [54] In June 2019, three councils—the Four-party Liaison Council, Four-party Cooperation Council, and Collaborative Partner School Liaison Council—met to assess the following aspects of the Professional Development Program for Teachers and School Leaders: 1) difference between the percentage of graduates employed as teachers and the target rate; 2) curriculum implementation; and 3) progress made by students toward developing into the type of people the program promises to cultivate. Subsequently, the councils' assessments were incorporated into the Graduate School of Education's self-evaluation accreditation report. The self-evaluation accreditation report was submitted on June 28 to the evaluation institute in charge of the accreditation evaluation of the Graduate School of Education—the Institute for the Evaluation of Teacher Education. In addition, according to the Institute for the Evaluation of Teacher Education's assessment of the Graduate School of Education's self-evaluation accreditation report submitted on June 28, as well as the Institute's visit-based accreditation evaluation performed on November 5 and 6, Hiroshima University's Graduate School of Education met the Institute's criteria for qualifying as a certified Graduate School of Education. Furthermore, on April 25, 2019, the University submitted an inquiry to the Ministry of Education, Culture, Sports, Science and Technology about establishing the Graduate School of Humanities and Social Sciences, and received approval on August 23, 2019 for establishing it in April 2020. Accordingly, the University increased the enrollment limits of the Professional Development Program for Teachers and School Leaders (i.e., the Graduate School of Education) from 20 to 30.	

I Business operation and financial status
(1) Business operation improvement and optimization goals
③ Office work optimization and rationalization goals

Medium-term goals	[25] Optimize and rationalize office work by reexamining organizations and business systems, and also help staff members improve their skills.

Medium-term plan	AY 2019 plan	Progress		Descriptions and explanations (of plan implementation)	
		Mid-term	AY	Plan implementation by AY 2019	Plans to be implemented in AY 2020 and 2021
[55] Take the following actions to optimize and rationalize office work: 1) regularly reexamine organizations and business systems; 2) perform maintenance of ICT systems, including gathering data stored in multiple systems in one place and improving the University's online application system; and 3) help staff members improve their skills by providing them with work-related training and role-based training.		III		(Overview of AY 2016 to AY 2018 plan implementation) • The University reorganized its organizations and then updated its IROHA faculty/staff portal site accordingly, saving some of the site's functions that could still be used. In addition, in 2017, the University discontinued the acceptance of written application forms and completely switched to its more applicant-friendly online application system. • The University reexamined its organizations and business systems by putting effort into identifying unprofitable and redundant business practices that it could do without and subsequently made this a regular practice.	• The Education and Research Data Collection System (DWH) will be updated to accommodate certain changes made to the University's teacher evaluation system. • The University will reexamine the need for about 45% of committees/councils attached to Executive Director Offices (by disbanding or merging them and/or reducing members) by April 2020; subsequently, it will encourage schools/offices to do the same with committees/councils attached to them.
	[55] Reexamine education and research organizations and business systems and improve ICT systems as necessary. In addition, check whether the University's centralized system under which its data, including its business systems, are managed is working to its advantage and improve as necessary. Furthermore, refer to the staff-skill improvement plans formulated last academic year and offer various work-related and role-based training programs.		III	(AY 2019 plan implementation) [55] • In February 2020, the Japan Science and Technology Agency released a new version (V2) of its researcher database service titled "researchmap," which enables users to manage and publicize their achievements. Subsequently, the University decided to switch from the older version and transferred its researchers' data to the new version because it was found to offer the following benefits: 1) simplifies teachers' routine office procedures, 2) allows the publicizing of achievements stored in the University's Education and Research Data Collection System (DWH), and 3) provides access to information on competitive funding, including the Japan Society for the Promotion of Science's grants-in-aid for scientific research. • The University optimized office work by developing business letter templates for coordinating meeting schedules and sending meeting notifications. • In addition, it examined the reasons for the establishment of, and the need for, the 176 committees/councils attached to Executive Director Offices, as well as whether they had completed the switch to recording data electronically rather than on paper, and took the following actions: 1) disbanded 22 (12.5%), 2) merged 13 (7.4%), 3) reduced members of 30 (17%), and instructed 14 (8%) to reduce the number of meetings.	

(1) Points to note regarding efforts put into improving and optimizing business operations

1. Points to note

i) Organizational management improvement efforts [Project No. 44]

[AY 2016 to AY 2018]

- To help schools/offices identify and resolve underlying issues and thereby enhance the quality of their education and research efforts in ways that will strengthen their features and characteristics, as it has been doing every year since AY 2008, the University asked external stakeholders (including at least one external member of the Administrative Council) to assess its schools/offices. After receiving the Administrative Council's assessment, the University's Evaluation Committee performed a follow-up third-party evaluation of progress made by schools/offices in resolving underlying matters and informed the President and the Deans/Directors of the results, helping the University increase the effectiveness of its PDCA cycles.
- With the aim of incorporating particularly productive ideas contributed by students into its operations, in AY 2017, the University asked its students and external members of the Administrative Council to come together to share ideas with it. After being asked by a number of students whether it could extend the library's opening hours to 22:00, the University took this as an opportunity to improve the students' study environment, and in April 2018, decided to keep the library open until midnight.
- In AY 2018, the University asked external members of the Administrative Council and its young instructors (under the age of 40) to come together to share ideas with it.

[AY 2019]

- In preparation for evaluating its AY 2020 third-medium term education and research performance, the University needed to restructure its evaluation system, and to do so, in evaluating the AY 2019 performance of its schools/offices, it performed a pilot test of its new evaluation method. The results of the test were incorporated into the School/Graduate School Status Reports for the three years from AY 2016 through AY 2018—as a pilot for the four years from AY 2016 through AY 2019—and were reviewed by external stakeholders, before subsequently being submitted to the National Institution for Academic Degrees and Quality Enhancement of Higher Education. Subsequently, based on the external stakeholders' feedback, schools/offices improved their operations and reflected improvements in the third-medium term evaluation of the University's education and research efforts—the School/Graduate School Status Reports—enhancing the effectiveness of the University's PDCA cycles.
- The University asked students at graduate schools newly established in April 2019 by school reorganization—the Graduate School of Integrated Sciences for Life and Graduate School of Biomedical and Health Sciences—and external members of the Administrative Council to come together to share ideas with it. After being asked by a number of students at the Graduate School of Integrated Sciences for Life whether it could create opportunities for them to share their thoughts with students pursuing studies in other academic fields so that they could expand their knowledge of disciplines other than their own, in February 2020, the University arranged an interim briefing session for all students in the Graduate School of Integrated Sciences for Life's Master's programs to share their thoughts on each other's research. In addition, in response to a request from a number of students in the Graduate School of Biomedical and Health Sciences for on-demand classes that could help them set more time aside for pursuing research, the University assigned its working group in charge of studying cross-departmental graduate courses to investigate possibilities for granting this request and subsequently decided to introduce on-demand classes in AY 2020.

ii) Governance reform efforts [Project No. 45]

[AY 2016 to AY 2018]

To appoint people able to properly serve in the roles of Deans/Directors by selecting those who share the President's vision and understand the University's management policy, the University had schools/offices principally recommend multiple candidates for interview-based screenings to be conducted by the President.

In line with the changes made in April 2015 in laws regarding university governance reform, at its 5th meeting in AY 2017, the University's President Selection Committee conducted a performance-based reappointment screening and assessed that the performance of the incumbent—whose term of office expires at the end of AY 2018—to be excellent, and recommended him as the next presidential candidate.

[AY 2019]

The committees that have been set up to prepare to establish new graduate schools in April 2020 recommended multiple candidates for Deans, and the President subsequently conducted interview-based screenings.

The President Selection Committee conducted its annual interview-based evaluation of the President's performance.

iii) Administrative system update efforts [Project No. 45]

[AY 2016 to AY 2018]

To update its administrative system by accommodating changes made in its education and research organizations in accordance with its graduate-school reorganization plan, the University previously set up a working group to develop an update plan under the Executive Board's authority, and in May 2018, the University received a report from the working group. Subsequently, to work out the details of the working group's update plan, based on its report, the University set up more working groups and put them in charge of the following tasks: 1) designing the details of the new administrative system, 2) evaluating teachers, 3) improving the education and research environments, 4) supervising business systems, 5) allocating the University budget, 6) coordinating programs involving teaching licenses and national qualifications, and 7) managing the personnel system. Subsequently, the working groups gathered ideas from internal stakeholders and incorporated the progress results into reports.

[AY 2019]

- To improve its functions from a University-wide perspective that transcends individual education and research organizations, based on a report titled "Updating the University's Administrative System to Accommodate Changes Made in its Education and Research Organizations," compiled in May 2019, the University took the following actions to lay the foundations for efforts it will begin to make in April 2020 to strengthen the functions of the Academy—the teachers' association it established in AY 2016: 1) created a Basic Subjects Division and put it in charge of guiding all instructors through the University's efforts to prepare entrance examinations and offer cross-departmental courses; and 2) created Specialized Subjects Divisions, with which instructors become affiliated depending on their specialty, and put them in charge of evaluating the performance/achievements of those affiliated with them. In addition, to accurately identify instructors making proper efforts, evaluate them accordingly, and keep them motivated, instead of continuing to allow each of its education and research organizations to do as they please, the University standardized the criteria for evaluating instructors and organized them in a report titled "Hiroshima University's New Instructor Evaluation System—Keeping Instructors Motivated to Help Hiroshima University Continue to Develop."
- After receiving in February 2019 a report titled "Cultivating Instructors by Helping Them Improve Their Skills," in April 2019, the University established a Personnel Cultivation Promotion Headquarters under the President's authority to systematize personnel cultivation efforts by centralizing the management of activities designed to help its instructors improve their abilities and skills. In addition, the University assessed the need to begin assigning mentors to newly employed instructors and subsequently decided to start doing so in AY 2020.
- Furthermore, the working groups set up in response to the report titled "Updating the University's Administrative System to Accommodate Changes Made in its Education and Research Organizations"—to work on the details of the University's administrative system update plan and resolve any issue underlying it—completed their assignments in March 2020, as is summarized in the following chart.

	名称	検討内容	答申等
A-WG	新運営体制詳細設計検討WG 教員の個人評価検討subWG	(1) 教育組織と教育組織の役割の明確化 (2) 学術院の構成 (3) 教員人事の流れ (4) 教員の業績評価	「新たな教育研究組織に対応した運営体制の詳細設計について（答申）」/令和元年5月28日 「広島大学の新たな教員個人評価制度について（答申）～教員がさらに活躍し，広島大学がさらに躍動していくために～」／令和2年2月25日
B-WG	教育研究環境改善に関する検討WG 教員の能力開発・育成に関する検討subWG 教育研究環境改善に関する検討subWG	(1) IT教員へのスタートアップ経費の措置 (2) 研究力向上に向けた取組 (1) 本学の教員に期待される能力（Professional Competencies）の設定 (2) メンター教員の配置 (3) 人材育成推進本部の設置 (1) N-BARDの組織再編による研究設備マネジメント体制の再構築 (2) 技術職員の体制強化	「全学共用機器等の総合的マネジメント体制について（答申）」／令和元年6月20日 「教員の能力開発・育成について（答申）」／平成31年2月25日 「本学の研究環境の向上について（答申）」／令和元年7月19日
C-WG	業務組織等検討WG東広島地区運営支援部再編 業務組織等検討WG研究科再編，学域への対応	(1) 東広島地区運営支援部／支援室の見直し，業務の廃止・見直し (2) 教育研究組織の枠を超えた全学的視点からの運営体制案	支援室の再編を実施／令和2年4月1日
D-WG	予算配分の検討WG 施設検討subWG	(1) 組織単位の配分方針 (2) 教員個人経費の配分方針 (3) 各研究科等への配分方針 (4) IT教員のｽﾀｰﾄｱｯﾌﾟ経費 (5) 間接経費の使用方針 (6) 施設の有効活用等	「新たな教育研究組織に対応した予算配分について（答申）」／令和元年11月28日 「新たな教育研究組織に対応したスペースの確保方針及び全学共通運営経費の運用方針並びに本学の研究環境等の向上に向けた教育研究スペースの改善方針について（答申）」／令和2年3月24日
E-WG	免許・資格等検討WG	(1) 教員免許取得者の就職状況調査 (2) 学部等における国家資格調査，及び取得のための必要教員数調査	「免許・資格等検討WG（答申）について」／令和2年3月24日
F-WG	テニュアトラック制度検討WG 学内昇任制度検討WG プロフェッショナル教員検討WG	(1) 新たなテニュアトラック制度の構築 (2) 学内昇任制度の構築 (3) 特定専門教員及び室引教員の定義等	「テニュアトラック制度に関する検討結果について（答申）」／平成30年9月20日 「広島大学における学内昇任制度について（答申）」／平成30年11月27日 「広島大学における特定専門教員及び室引教員（卓越した能力を持つ教員）について（答申）」／平成30年9月20日

iv) Staff international competitiveness improvement efforts [Project No. 49]
[AY 2016 to AY 2018]

- To improve the percentage of staff members with TOEIC scores of 800 or higher—from AY 2016's 7.5%, AY 2017's 9.7%, and AY 2018's 16.3%—to 20% by May 1, 2023, and thereby increase their international competitiveness as part of the Ministry of Education, Culture, Sports, Science and Technology's Top Global University Project, which the University was selected as a participant in AY 2014, the University took the following actions: 1) employed more non-Japanese workers, 2) sent staff members off to undergo overseas training, and 3) offered skill development training programs (online English conversation) and foreign language training programs (TOEIC preparation).

[AY 2019]

- Offering overseas training programs, skill development training programs (online English conversation), and foreign language training programs (TOEIC preparation) to improve the percentage of staff members with TOEIC scores of 800 or higher by May 1, 2023 to 20% and thereby increase their international competitiveness as part of the Ministry of Education, Culture, Sports, Science and Technology's Top Global University Project, which the University was selected as a participant in AY 2014, improved this rate to 15.8%, as of March 31, 2020, surpassing the AY 2019 target of 10.5%, which the University had set for itself in its Top Global University Project proposal.

v) Staff development plan implementation efforts [Project No. 49 & 55]
[AY 2016 to AY 2018]

- To identify and employ people who truly want to work at Hiroshima University and who have diverse perspectives, since AY 2013, the University has been administering an original staff employment examination, in addition to the Standardized National-University-Staff Employment Examination. In AY 2017, the following changes were made in the University's staff employment system: 1) the number of screening stages were increased from three to four, 2) an aptitude test was introduced, 3) more women were asked to serve as interviewers, and 4) high TOEIC scores were incorporated into the screening criteria. In AY 2018, to increase its chances of attracting more applicants by offering screening opportunities conveniently scheduled for those who graduate from college or complete graduate school in months other than March, or who are interested in switching jobs, the University increased the number of such opportunities, which until then were only offered once a year, to three times a year, welcoming various workers on board, including former business people who have done business with companies overseas.
- The personnel evaluation results used at the University as a reference in deciding whether to offer promotions and diligence-based salary raises were based on the management by objectives model. However, reconsidering this practice, in October 2017, the University partially revised its system to evaluate and base promotion/salary raise decisions regarding managers (i.e., general staff serving in group leader positions) on their responsibilities, skills, and performance.
- The University offered the following programs designed to help participants develop an extensive knowledge of international exchange and high work-related skills: 1) overseas training programs, 2) skill development training programs (online English conversation), and 3) foreign language training programs (TOEIC preparation). Each program welcomed the following number of participants in the academic years provided below.

	Overseas training programs	Skill development training programs (online English conversation)	Foreign language training programs (TOEIC preparation)
AY 2016	12 to 7 countries	29	14
AY 2017	11 to 8 countries	25	21
AY 2018	12 to 9 countries	41	12

- After completing their programs, overseas training program participants are assigned to the Department of International Affairs, where they continue to receive training so that they can develop the skills needed to help the University become more internationalized.

[AY 2019]

- The University began administering an original staff employment examination in AY 2013, in addition to the Standardized National-University-Staff Employment Examination, so that it could identify and employ applicants who truly want to work at Hiroshima University and have diverse perspectives, and it also increased the number of screening opportunities to four a year in AY 2019 to offer more screenings conveniently scheduled for those who graduated from college or completed graduate school in months other than March or who were interested in switching jobs that year, which led to the employment of 22 diverse workers (comprising 17 working members of society and 5 new college graduates), including former bankers and hospital workers.
- The University offered the following programs, designed to help participants develop an extensive knowledge of international exchange and high work-related skills, welcoming the following number of participants to each program: 1) six participants to five countries in the overseas training programs, 2) 12 participants in the skill development training programs (online English conversation), and 3) 13 participants in foreign language training programs (TOEIC preparation). In addition, the previous academic year's foreign language training programs were followed by a participant satisfaction survey, whose results were used to improve this year's programs, helping coordinators in selecting textbooks more suited for participants studying for the TOEIC.

vi) Diversified Research Environment Creation Efforts [Project No. 50]
[AY 2016 to AY 2018]

- In AY 2016, the University took the following actions to reduce actual work hours and thereby promote a good work-life balance: 1) first, it identified its workers' overtime work hours by asking staff in charge of keeping track of working hours, 2) then, it introduced modified work schedules that adjusted start and end times, with which it reduced overtime work hours and also encouraged workers to take annual leave.
- In AY 2017, the University conducted a survey on its workers' use of its work-life balance support systems and subsequently realized they had the following sort of need: 1) the right to decide whether or not to return after leaving the University due to family reasons—e.g., accompanying one's spouse being transferred overseas—which inspired the University to introduce in April 2018 the Temporary Leave to Accompany Spouse Being Transferred Overseas system; and 2) help in balancing research with life events—pregnancy, childcare, and nursing—which inspired the University to appoint research assistants to help conduct research.

- In AY 2018, as part of the Ministry of Education, Culture, Sports, Science and Technology's Initiative for Creating More Diversified Research Environments (Pioneering) Project, the University implemented the following two measures.
  ① To help the University's researchers balance research with life events—pregnancy, childcare, and nursing—the University continued to appoint research assistants to help conduct research and responded to an annual total of 29 assistance requests (made within the request-acceptance period).
  ② To keep the door open for researchers married to other researchers at the University in case they want to temporarily leave to accompany their spouse being transferred overseas and subsequently return to resume their career, the University introduced a Career Advancement Project Researcher System, and under it, employed two part-time researchers within its budget.

[AY 2019]
- The University formulated a General Business Owner Action Plan (for the fourth term) and submitted it to Hiroshima Labour Bureau for approval under the Act on Advancement of Measures to Support Raising Next-Generation Children.
- Since its (third-term) General Business Owner Action Plan could not be submitted for approval due to the conditions for approval being revised during AY 2019, the University contacted the Labour Bureau to find out what changes it would need to make for the plan to be approved under the Act on Advancement of Measures to Support Raising Next-Generation Children.
- The University continued to appoint research assistants to help its researchers balance research with life events and also developed guidelines for screening assistance requests, explaining its point-based system for deciding whether to grant requests.
- With preschool education and childcare having become free of charge on October 1, the University informed its faculty, staff, and students via IROHA—its faculty/staff portal site—and University website in both Japanese and English that its on-campus childcare facilities had become available free of charge.
- During the National Center Test for University Admissions, the University widely made known the availability of its on-campus nursery facilities—the Himawari Nursery School and Cosmos Nursery Room—and after-school childcare services.
- After learning of the temporary closure of all elementary schools nationwide due to the novel coronavirus pandemic, the University temporarily opened its after-school childcare services in the Higashi-Hiroshima and Hiroshima areas from March 5 to March 25, welcoming 12 (out of a total of 113) and 17 (out of a total of 103) children in the Higashi-Hiroshima and Hiroshima areas, respectively. In addition, to help teachers provide elementary school students with education during the temporary closure, as an emergency measure, the University introduced a telework system that enabled working from home.

vii) Education and research organization improvement efforts [Project No. 52 & 53]
[AY 2016 to AY 2018]
To assign instructors strategically to areas that it had decided to prioritize, based on its redefined mission statement and the social needs it identified, in April 2016, all teachers' organizations were detached from education and research organizations and unified to form the Academy.
To respond to diverse social needs, after reviewing the functions of its schools and graduate schools, resetting their enrollment limits, and assigning instructors strategically, under its unified decision-making system for the employment and assignment of teachers, to areas that it had decided to prioritize—based on its Achievement-motivated Key
Performance Indicators (AKPI), which show the performance levels of faculty members as instructors and researchers, as well as an IR-indicator-based analysis—in April 2018, the University established the School of Informatics and Data Science and the Department of Integrated Global Studies, School of Integrated Arts and Sciences.
In addition, in July 2018, the University established a committee for preparing to establish the Graduate School of Future Cutting-edge Science (provisional) with the aim of developing an education and research organization that can help all other graduate schools also strengthen their functions.

[AY 2019]
To respond to diverse social needs, after reviewing the functions of its schools and graduate schools, resetting their enrollment limits, and assigning instructors strategically, under its unified decision-making system for the employment and assignment of teachers, to areas that it had decided to prioritize—based on its Achievement-motivated Key Performance Indicators (AKPI), which show faculty members' levels of performance as instructors and researchers, as well as an IR-indicator-based analysis—in April 2019, the University submitted an inquiry to the Ministry of Education, Culture, Sports, Science and Technology about establishing the following graduate schools—for the reasons provided along below—and received approval in August 2019 for establishing them in April 2020: 1) the Graduate School of Integrated Sciences for Life to strengthen its functions of offering life and biological science programs and the Graduate School of Biomedical and Health Sciences to do the same with its medical science programs and 2) the Graduate School of Humanities and Social Sciences to strengthen its functions of offering humanities and social sciences programs, as well as interdisciplinary programs, and also the Graduate School of Advanced Science and Engineering to do the same with its science and engineering programs.
The University took the following actions in reorganizing its graduate schools: 1) developed new degree programs in response to recent progress made in various disciplines, social changes, and public demand to put students at the center of learning; 2) developed a teaching system comprising groups of instructors with different areas of specialization, collaborating in helping students interested in pursuing interdisciplinary research; 3) introduced a new discipline titled "Science for Sustainable Development"; and 4) developed new cross-departmental graduate courses designed to inspire students to participate in community service and also help them develop the communication skills needed to collaborate with others if they want to conduct interdisciplinary studies.
Furthermore, the University submitted a plan to establish its first international joint degree programs to the Ministry of Education, Culture, Sports, Science and Technology on August 22, 2019, and received on December 18, 2019 approval for establishing in October 2020 the following programs: 1) Hiroshima University-University of Graz International Joint Sustainable Development Master's Program in the Graduate School of Humanities and Social Sciences and 2) the Hiroshima University-Leipzig University International Joint Sustainable Development Master's Program in the Graduate School of Advanced Science and Engineering.

viii) Efforts put into establishing and subsequently evaluating the Professional Development Program for Teachers and School Leaders (i.e., Graduate School of Education) [Project No. 54]
[AY 2016 to AY 2018]
After establishing in April 2016 the Graduate School of Education's Professional Development Program for Teachers and School Leaders (i.e., Graduate School of Education), at the end of January 2017, the University released its AY 2016 internal evaluation report. Subsequently, based on that report, in March 2017, the University and stakeholder boards of education—the Hiroshima Prefectural Board of Education, the Hiroshima City Board of Education, and the Higashi-Hiroshima City Board of Education, which together comprise a Four-party Liaison Council—evaluated the Professional Development Program for Teachers and School Leaders and shared their thoughts.
In February 2019, the University held four meetings—a Collaborative Partner School Liaison Council meeting, an action research presentation session, a research findings briefing, and a public evaluation session—and evaluated the program's curriculum, instructors' teaching methods, and research projects, and shared their thoughts with participants on ways to improve them.
In addition, after evaluating the Professional Development Program for Teachers and School Leaders based on the achievements of those who completed the program, comparing them with the program's objective criteria, including the goals described in the curriculum, the types of people it promises to cultivate, and the graduate employment rate, as well as whether it met social needs, the University improved the curriculum and decided to increase the enrollment limits from 20 to 30. Subsequently, in reorganizing its graduate schools, the University entered discussions with the Ministry of Education, Culture, Sports, Science and Technology, on establishing in April 2020 another Professional Development Program for Teachers and School Leaders (i.e., Graduate School of Education) in the Graduate School of Humanities and Social Sciences.

[AY 2019]
In August 2019, the University received approval from the Ministry of Education, Culture, Sports, Science and Technology for establishing the Graduate School of Humanities and Social Sciences' Professional Development Program for Teachers and School Leaders (i.e., Graduate School of Education) in April 2020, based on an inquiry that included the following plans: 1) increasing the program's enrollment limit, which was initially set at 20, to 30 and 2) administering the program with help from instructors teaching in the Division of Educational Sciences' Educational Design for Teacher Educators Program. In addition, on March 30, 2020, the University's Graduate School of Education was recognized by the Institute for the Evaluation of Teacher Education as meeting the Institute's criteria for qualifying as a certified Graduate School of Education.

ix) Organization and business system reexamination efforts [Project No. 55]
[AY 2016 to AY 2018]
A working group was appointed to identify unprofitable and redundant business practices that the University could do without, and based the group's report, relevant schools/offices subsequently dealt with them. Schools/offices performed regular follow-up examinations, and by the end of AY 2018, 11 on-campus parking permit issuance procedures were either discontinued or optimized.

[AY 2019]
To help instructors set aside time for their research, reduce the burden on faculty/staff, and invigorate meetings, the University developed guidelines for putting items on agendas and shortening meetings. In addition, it examined the reasons for the establishment of, and the need for, 176 committees/councils attached to Executive Director Offices, as well as whether they had completed the switch to recording data electronically rather than on paper, and decided to take the following actions before April 2020: 1) disband 22 (12.5%), 2) merge 13 (7.4%), 3) reduce members of 30 (17.0%), and instruct 14 (8.0%) to reduce their number of meetings.

○ Industry-academia-government collaboration management skill improvement efforts
i) Industry-academia-government collaboration management skill improvement efforts [Project No. 28]
[AY 2016 to AY 2018]
- In February 2017, the steering committee of the Hiroshima University Organization for the Promotion of Industry-Academia and Community Collaboration developed a roadmap for maximizing joint research efforts made through industry-academia-government collaboration, based on the Guidelines for Strengthening Joint Research through Industry-Academia-Government Collaboration issued by the Ministry of Education, Culture, Sports, Science and Technology and the Ministry of Economy, Trade and Industry. In addition, to systematically strengthen joint research through industry-academia-government collaboration, the University decided to promote collaboration between the Office of Industry-Academia-Government and Community Collaboration and the Academic Office and also appoint Vice Deans/Deputy Directors of its schools/offices in charge of industry-academia collaboration.
- To promote a new type of industry-academia collaboration that aims to co-create value through joint research and also cultivate human resources, on April 1, 2018, with help from external public organizations—with which the University has relationships built on in-depth mutual understanding and trust—the University established a co-creation research center, titled KOBELCO Dream-Driven Research Center—the first of its kind at the University.
- To improve the University's risk management system, in January 2018, the steering committee of the Hiroshima University Organization for the Promotion of Industry-Academia and Community Collaboration developed Guidelines for Protecting Confidential Information Obtained through Industry-Academia Collaboration and formulated essential rules for implementation.
- To reform its personnel evaluation system to meet the Ministry of Education, Culture, Sports, Science and Technology and the Ministry of Economy, Trade and Industry's Guidelines for Strengthening Joint Research through Industry-Academia-Government Collaboration, the University reexamined its Basic Effort Key Performance Indicators (BKPI) for instructors' efforts put into industry-academia collaboration (and community service) and thereby developed a system for evaluating instructors' industry-academia collaboration efforts.
- The University has previously concluded comprehensive collaboration agreements with Kure City Hall and the National Institute of Advanced Industrial Science and Technology (AIST), and to enhance collaboration with them, it opened the following facilities on the accompanying dates: 1) the Hiroshima University Kure Satellite office at Kure City Hall on January 30, 2019; and 2) the Hiroshima University-AIST Collaboration Office in the AIST's Chugoku Center on February 1, 2019.
- On January 10, 2019, the University signed a memorandum with the Chugoku Regional Development Bureau on disaster prevention and reduction measures, based on lessons learned from the 2018 Japan floods.
- On January 28, 2019, the University signed a memorandum with the New Energy and Industrial Technology Development Organization (NEDO) on collaborating to help entrepreneurs. On September 4, 2019, the University held a NEDO-designated regional event called the "Phoenix Competition"—a contest aimed at finding research seeds with the potential to grow into Hiroshima University startups. The instructor who won the grand prize in this competition subsequently went on to win the NEDO Technology Commercialization Program's Certified VC Prize and Judges' Special Prize.

[AY 2019]
- Following the establishment of its first co-creation research center in April 2018, the University established another one on April 1, 2019, called the Presymptomatic and Preventive Medicine Research Center—the second of its kind established by the University.
  In October 2019, the University merged its Organization for Research Promotion and Organization for the Promotion of Industry-Academia to form the Organization for Academic Research and Industry-Government Collaboration—a research management system able to help researchers not only perform basic and interdisciplinary research but also transfer technology seamlessly. In addition, it merged the Academic Office, the Office of Industry-Academia-Government and Community Collaboration, and the Industry-Community Collaboration Center to establish the Office of Research and Academia-Government-Community Collaboration.
  On October 1, the University developed an Open Innovation Platform under the President's authority and put it in charge of stimulating constant development of major joint research projects with companies, and managing them. The Open Innovation Platform also takes part in implementing measures aimed at helping promote industry-academia-government collaboration, including the following: 1) designing incentive systems, 2) formulating rules for helping startups, and 3) developing guidelines for preventing conflicts of interest.
  On February 18, 2020, the Platform revised the Guidelines for Protecting Confidential Information Obtained through Industry-Academia Collaboration to reflect the following perspectives: 1) preventing all parties involved from leaking the University's yet-to-be-released research findings and 2) preventing all parties involved from accidentally disclosing confidential information to third parties (i.e., unauthorized disclosure).

ii) Proper joint-research cost sharing efforts [Project No. 28]
[AY 2016 to AY 2018]
To properly share the costs incurred from industry-academia collaboration, the University reexamined its joint research cost management system, visualized the costs, and decided to begin to apply on April 1, 2017 a new cost calculation system to joint research contracts, designed to allow parties involved to properly share joint research costs (i.e., researcher labor costs and other strategic costs incurred from industry-academia collaboration) by calculating the amount that the industrial sector should cover (i.e., indirect costs determined based on hourly rates). Consequently, the University was able to properly share joint research costs and thereby receive more income to cover indirect costs by increasing this type of income, which totaled 105 million yen before switching to the new system in AY 2016, to 164 million yen after switching in AY 2019.

[AY 2019]
To motivate researchers to collaborate on joint research and thereby promote such efforts, the University decided to introduce in April 2020 a new system for calculating indirect costs, called "basic research promotion costs," which estimates the value that a given researcher's academic knowledge contributed to his/her joint research and incorporates that value into the project's indirect costs.

iii) Efforts to improve data publicizing function [Project No. 28]
[AY 2016 to AY 2018]
The University restructured its integrated technology information system "Himawari" to allow searches for industry-academia co-creation seeds and subsequently added a mutual link between it and the University's Profiles of Faculty and Research Scholars database, reorganizing them into a new system that enables searches for industry-academia collaborative projects and researchers through both databases at once.
In addition, in AY 2018, the system's input interface for searches for seeds information was made more user friendly, as was its output function, which now allows results to be viewed more clearly via PDF files. These improvements are expected to attract more research seeds, as well as companies searching for such seeds, and by doing so, increase joint research contracts that will lead to securing more external funding.

In addition, please note that the University's efforts described in the shaded areas of this section—Industry-academia-government collaboration management skill improvement efforts—meet the Guidelines for Strengthening Joint Research through Industry-Academia-Government Collaboration (established on November 30, 2016).

2. University-wide efforts

(Governance reform)

○ Strategic and effective corporate management and resource distribution

i) Education and research organization improvement efforts [Project No. 52 & 53]
[AY 2016 to AY 2018]
To assign instructors strategically to areas that it had decided to prioritize, based on its redefined mission statement and the social needs it identified, in April 2016, all teachers' organizations were detached from education and research organizations and unified to form a teachers' association referred to as the Academy.
To respond to diverse social needs, after reviewing the functions of its schools and graduate schools, resetting their enrollment limits, and assigning instructors strategically, under its unified decision-making system for the employment and assignment of teachers, to areas that it had decided to prioritize—based on its Achievement-motivated Key
Performance Indicators (AKPI), which show the performance levels of faculty members as instructors and researchers, as well as an IR-indicator-based analysis—in April 2018, the University established the School of Informatics and Data Science and the Department of Integrated Global Studies, School of Integrated Arts and Sciences.

[AY 2019]
To respond to diverse social needs, after reviewing the functions of its schools and graduate schools, resetting their enrollment limits, and assigning instructors strategically, under its unified decision-making system for the employment and assignment of teachers, to areas that it had decided to prioritize—based on its Achievement-motivated Key
Performance Indicators (AKPI), which show the level of performance of faculty members as instructors and researchers, as well as an IR-indicator-based analysis—in April 2019, the University submitted an inquiry to the Ministry of Education, Culture, Sports, Science and Technology about establishing the following graduate schools—for the reasons provided along below—and received approval in August 2019 for establishing them in April 2020: 1) the Graduate School of Integrated Sciences for Life to strengthen its functions of offering life and biological science programs and the Graduate School of Biomedical and Health Sciences to do the same with its medical science programs and 2) the Graduate School of Humanities and Social Sciences to strengthen its functions of offering humanities and social sciences programs, as well as interdisciplinary programs, and also the Graduate School of Advanced Science and Engineering to do the same with its science and engineering programs.
Furthermore, efforts aimed at developing an education and research organization that can help all other graduate schools also strengthen their functions are being made by the University's committee for preparing to establish the Graduate School of Future Cutting-edge Science (provisional).
As described above, efforts put into reorganizing the University's schools and graduate schools have led to promotion of the University's education and research in ways that maximize its capabilities and strengthens.

ii) Personnel assignment
[Assignment of faculty members]
As has been the general practice since AY 2016, in accordance with the Basic Policy for Managing Third-medium Term Instructor Labor Costs, the University used its labor cost point system, which estimates average instructor labor costs by individual job titles, in assigning faculty members. In addition, to strategically assign faculty members from a University-wide perspective, the University centralized the management of labor cost points to the Personnel Committee, established under the President's authority, instead of having schools/offices manage them individually. In strategically assigning faculty members from a University-wide perspective, the University allocated labor cost points in ways that allowed it to assign necessary faculty members to newly established education and research organizations and also promote the employment of female, non-Japanese, and young instructors in accordance with the University's annually revised Teacher Deployment Policy.

[Staff assignment]
To optimally manage labor costs and strategically assign staff from a University-wide perspective, in AY 2013, the University began managing staff assignments based on cost, instead of headcounts. Consequently, it reduced annual costs at rates ranging from 1.9% to 3.0% depending on the year, a breakdown of which shows 1.6% to 2.3% as arising from reductions in labor costs and 0.3% to 0.7% from reductions in University-wide coordination costs. To reflect labor costs more accurately, in AY 2019, the University recalculated labor costs per point. In addition, the money that came from reducing coordination costs were strategically invested in efforts to strengthen governance functions, including measures to strengthen project development functions, establish new schools, reorganize graduate schools, fund research, and promote globalization.

○Timely decisions to ask external experts for help

i) Between AY 2016 and AY 2019, the Administrative Council held 20 meetings to discuss matters relating to plans and goals essential for operating the University, including medium-term goals and plans, annual plans, budgets, and financial statements.
Measures that were taken in response to feedback from external council members on the University's operations were organized by academic year and posted on the University's official website along with the Administrative Council Meeting Minutes.

○Internal and external audits

i) To ensure the legality, rationality, and efficiency of its operations, the University takes the following actions: 1) inspects for any issues by conducting fair and objective internal audits (of its policies on revising and enforcing rules, protecting personal information, and handling corporate documents) and should any issues arise; 2) provides internal control managers with advice and has them work with schools/offices on resolving the identified issues; and 3) releases its internal audit reports.
ii) To ensure that its accounts are kept properly and thereby continues to fulfill its mission statement by maintaining the rationality and efficiency of its operations, the University conducted annual external audits with the help of external auditors, who collaborated with its Audit Office, and subsequently posted audit reports on its official website.
The University has the President and auditors meet regularly to apply audit report results to its operations, ensure the independence of auditors, investigate the reliability of its auditor support system, and make improvements as necessary. In addition, in AY 2018, the University strengthened the reliability of its audit system by having the Chairperson of the Evaluation Committee also regularly meet with auditors.

I Business operation and financial status
(2) Financial status improvement goals
① External research funding, donation collection, and other goals for increasing income

Medium-term goal	[26] Strengthen the University's financial base so that it can maintain the quality of its education and research at a level internationally expected of comprehensive research universities.

Medium-term plan	AY 2019 plan	Progress		Descriptions and explanations (of plan implementation)	
		Mid-term	AY	Plan implementation by AY 2019	Plans to be implemented in AY 2020 and AY 2021
[56] Increase the average amount of external funding secured by each instructor to about 1.5 times that secured at the end of the second medium term, and to do so, examine domestic and international trends of competitive funding, and then develop a more effective strategy for securing external funding.		III		(Overview of AY 2016 to AY 2018 plan implementation) In AY 2016, the University expanded the scope of its Strategy for Winning Competitive Funding—after having revised it once in AY 2014—to target all types of external income sources, from joint research funds to donations, and retitled the strategy as follows: Strategy for Winning External Funding. The new strategy aims to have full-time instructors achieve by the end of the third medium term an average external funding amount of 8.5 million yen each (estimated by dividing 14.535 billion yen [the AY 2021 external funding goal] by 1,710 [the number of full-time instructors projected for AY 2021], which is equal to the product of 5.95 million yen [external funding that was secured by each instructor in the second medium term] and 1.5) and is designed to do so through the following actions in accordance with domestic and international research funding trends described in the Cabinet Office's 5th Science and Technology Basic Plan, as well as strategy-based goals of securing external funding, as defined by each of the University's Executive Director Offices: 1) providing the University with a foundation for strengthening its financial base and 2) implementing measures to increase its income from all targeted types of external funding sources. In AY 2017, the University helped full-time instructors secure an average external funding amount of 6.53 million yen each (10.954 billion yen/1,677 full-time instructors), an amount approximately 1.1 times larger than that estimated at the end of the second medium term, and it did so by implementing the new strategy it developed the previous year—the Strategy for Winning External Funding—designed to draw more income from all types of external sources primarily through the following means: 1) sharing joint-research costs more properly with parties involved with the newly introduced hourly-based method of splitting indirect costs, 2) increasing the number of sponsor-named funds, and 3) attracting more clinical trials of regenerative medicine products. In AY 2018, the University helped full-time instructors secure an average external funding amount of 7.63 million yen each (12.863 billion yen/1,685 full-time instructors), an amount approximately 1.28 times larger than that estimate at the end of the second medium term, by continuing to implement its Strategy for Winning External	To help each of its instructors secure an average amount of external funding about 1.5 times larger than that estimated at the end of the second medium term, the University will reexamine its strategy for securing external funding by calculating the amount of external funding it secured in AY 2019 and also analyzing that academic year's domestic and international trends of competitive funding, primarily through the following means: 1) incorporating basic research promotion costs into the category of indirect costs incurred by joint research, which are to be split based on the hourly-rate method; 2) implementing the Fund's fundraising strategy, formulated in AY 2019, to expand the Fund for Uplifting Hiroshima University and Energizing the Local Communities of Hiroshima; and 3) improving advanced level how-to-apply seminars on Grants-in-Aid for Scientific Research (KAKEN) to also meet the needs of those who wanted help with applying for higher-level KAKEN grants than the ones they were previously awarded but were not satisfied with existing seminars because they were not designed precisely for their fields of expertise.

				Funding, designed to draw more income from all types of external sources, primarily through the following means: 1) increasing the number of lectures it offers on joint research; 2) increasing the number of sponsors/funds comprising the University's "Fund for Uplifting Hiroshima University and Energizing the Local Communities of Hiroshima"; and 3) collaborating with university research administrators in helping its researchers win competitive funding provided by such organizations as the Japan Agency for Medical Research and Development and the Japan Science and Technology Agency.	
	[56] Examine the University's strategy for securing external funding, as well as domestic and international trends of competitive funding, and based on that examination, develop a plan for securing external funding.		III	(AY 2019 plan implementation) [56] The University used its Strategy for Winning External Funding, formulated in AY 2016, to examine domestic and international trends of competitive funding, and based on that examination, it subsequently developed a plan for securing external funding in AY 2019. By implementing that plan, the University helped full-time instructors secure an average external funding amount of 7.44 million yen each (12.871 billion yen/1,731 full-time instructors), an amount approximately 1.25 times larger than that estimated at the end of the second medium term, primarily through the following means to draw more income from all types of external sources: 1) improving its organizations (i.e., the Office of Research and Academia-Government-Community Collaboration and the Open Innovation Platform) in ways that will enable providing researchers with seamless and systematic help, from strengthening basic fundamental research skills to applying findings in practical ways; 2) formulating a new fundraising strategy to expand the Hiroshima University Fund; and 3) initiating a Hiroshima University crowdfunding project and thereby increasing the number of donation methods used by the Fund.	
[57] Regularly examine whether donation methods and public relations efforts are producing the desired effects, and based on that examination, improve strategies for attracting funding to continue the expansion of the Hiroshima University Fund.		IV		(Overview of AY 2016 to AY 2018 plan implementation) The University regularly examined whether donation methods and public relations efforts were producing the desired effects, and based on that examination, it assessed the need to begin using internet banking payment systems, as well as accepting bequests. The University also asked alumni associations for donations. In addition, in AY 2016, after tax law revisions reduced the amount of tax levied on funds that help students overcome economic hardship so that they can continue their studies, the University set up a new fund—Emergency Aid for Hiroshima University Students. In November 2017, in early celebration of its 75th anniversary coming up in 2024, the University established a Fund for Uplifting Hiroshima University and Energizing the Local Communities of Hiroshima. In its early days, immediately after being established, the fund's activities were limited to on-campus solicitation of donations to fund startups. Subsequently, the fund began making fundraising efforts off campus as well. The University built the Fund's system with help from local chambers of commerce and industry, and in order to promote the Fund, it subsequently established, in July 2018, the Fund Promotion Committee with help primarily from internal stakeholders and alumni representatives of	Based on a new fundraising strategy, the University will continue making fundraising efforts, including launching time-limited fundraising campaigns and translating the Fund's website into English. At the same time, the University will put effort into identifying individual and company needs, and based on such needs, it will then reexamine its fundraising strategies, including analytical methods at its disposal as necessary.

				companies and other organizations in Hiroshima Prefecture, and then began asking for donations in local communities. To strengthen the Fund's donation solicitation efforts, in April 2018, the University established the Office of Funding under the President's authority and assigned full-time staff to continue the development of the Fund.	
	[57] Examine whether donation methods and improved public relations efforts are producing the desired effects, and based on that examination, formulate a new strategy for attracting more funding to continue to expand the Hiroshima University Fund.		III	(AY 2019 plan implementation) [57] To expand the Hiroshima University Fund, the University diversified its donation methods, such as by setting up school/office funds. In addition, the University examined whether its public relations efforts were producing the desired effects, and based on that examination, it improved the Fund's website and also organized and released data on the University's donation use. Furthermore, the University drafted a new fundraising strategy, based on recent efforts.	

I Business operation and financial status
(2) Financial status improvement goals
② Cost control goals

Medium-term goal	[27] Visual financial indicators to efficiently reduce administrative expenses.

Medium-term plan	AY 2019 plan	Progress		Descriptions and explanations (of plan implementation)	
		Mid-term	AY	Plan implementation by AY 2019	Plans to be implemented in AY 2020 and AY 2021
[58] Perform financial analyses of individual segments, and based on those analyses, set the reduction goal of the budget for back-office consumables costs at about -2% of those incurred last academic year to encourage staff to regularly put effort into reducing the general and administrative expense rate.		III		(Overview of AY 2016 to AY 2018 plan implementation) To reduce the general and administrative expense rate, the University set the reduction goals of the following budgets at -2.5% of those incurred last academic year: 1) administrative expenses for AY 2016; and 2) administrative expenses and University-wide operating costs (e.g., utilities, cleaning, security, building maintenance) for AY 2017 and AY 2018. In addition, after learning that concluding long-term electricity contracts comes with the benefit of increased long-term and quantity discount rates, the University concluded 5-year contracts in the Higashi-Hiroshima and Kasumi areas, achieving in AY 2018 an annual reduction of 45.529 million yen. Furthermore, to reduce utility costs in the Kasumi area, in AY 2017, the University decided to use a management-included ESCO service (where a private company redesigns a client's building in ways that will enable energy saving, the expenses for which the client subsequently pays with the utility cost savings).	The University will perform financial analyses of individual segments, and based on those analyses, it will set the reduction goal of the budget for back-office consumables costs at about -2% of those incurred last academic year to encourage staff to put effort into reducing the general and administrative expense rate. Subsequently, it will allocate the amount that should arise from the reduction towards education and research.
	[58] Perform financial analyses of individual segments, and based on those analyses, set the reduction goal of the budget for back-office consumables costs at about -2% of those incurred last academic year to encourage staff to put effort into reducing the general and administrative expense rate.		III	(AY 2019 plan implementation) [58] The University set the reduction goal of the AY 2019 budget for back-office consumables costs at about -2% of those incurred last academic year to encourage staff to put effort into reducing the general and administrative expense rate. In addition, the long-term electricity contracts the University concluded in the Higashi-Hiroshima and Kasumi areas produced an annual reduction of 44.011 million yen. Furthermore, the ESCO service it decided to begin using recommended switching to a more energy-efficient air conditioning and heating system, and doing so generated in AY 2018 an annual saving of 41.047 million yen on utilities compared to the average incurred over AY 2014 to AY 2016. Consequently, the University achieved in AY 2018, and has maintained since then, a general and administrative expense percentage of 2.7%—a figure smaller than that year's national average of 2.9%.	

I Business operation and financial status
(2) Financial status improvement goals
③ Asset management goals

Medium-term goal	[28] Maximize the use of assets (i.e., facilities, equipment) from a University-wide perspective and regularly reexamine whether assets are used to the full.

Medium-term plan	AY 2019 plan	Progress		Descriptions and explanations (of plan implementation)	
		Mid-term	AY	Plan implementation by AY 2019	Plans to be implemented in AY 2020 and AY 2021
[59] Regularly keep track of the usage status of the University's assets (i.e., facilities, equipment), verify the accuracy of such data, promote shared use, and maximize the use of assets by making them available to the public.		III		(Overview of AY 2016 to AY 2018 plan implementation) In AY 2016, the University sold its land in the Hatsukaichi area (the former yacht clubhouse of the School of Medicine) after recognizing that it no longer had any use for it. The University also saw an increase in income from sales-based contracts for land and building lease with vending machine companies as follows: 1) 2.722 million yen in AY 2016 compared to the preceding academic year; and 2) after switching from contracts with two companies to just one, 8.417 million yen in AY 2018 compared to the preceding academic year. In addition, in AY 2017, to motivate schools/offices in charge of managing and promoting its rental facilities/equipment, the University promised to provide incentive allocations. Subsequently, income from rental facility/equipment fees increased by 2.7 million yen. Furthermore, to find out the kind of maintenance plan that maximizing the use of its research equipment would require, the University took the following actions: 1) kept track of users' purposes and usage patterns, 2) reexamined its method of calculating rental fees, 3) registered its research equipment with the Network of University Research Equipment, and 4) asked users to register with the network.	The University will keep track of the use of its assets (i.e., facilities, equipment), verify the accuracy of such data, promote shared use, and maximize the use of assets by making them available to the public. In addition, it will revise the rental fees currently set for communal research equipment.
	[59] Keep track of the use of the University's assets (i.e., facilities, equipment), verify the accuracy of such data, promote shared use, and maximize the use of assets by making them available to the public.		IV	(AY 2019 plan implementation) [59] In AY 2018, in accordance with Article 34-2 of the National University Corporation Act, the University received permission from the Minister of Education, Culture, Sports, Science and Technology to lease its land—formerly a staff apartment (Amamizuyama housing estate)—as a parking lot. Subsequently, it concluded a lease agreement on leasing the land, beginning in March 2020 and expects an income of about 36 million yen within a decade. The University reorganized the Natural Science Center for Basic Research and Development, and in doing so, it reexamined the lineup of its communal research equipment, based on users' purposes and usage patterns, as well as running costs.	

(2) Points to note regarding efforts put into improving the University's financial status

1. Points to note

i) Cost control [Project No. 58]

[AY 2016 to AY 2018]

The University compared its electricity contract with those of other universities, and based on that comparison, it concluded long-term five-year contracts in the Higashi-Hiroshima and Kasumi areas. The new contracts came with increased long-term and quantity discount rates, which in AY 2018 generated annual savings of 45.529 million yen.

In addition, in AY 2017, the University decided to use a management-included ESCO service in the entire Kasumi area, and in AY 2018, it switched to a more energy-efficient air conditioning and heating system.

[AY 2019]

In AY 2019, the University's long-term electricity contracts generated an annual saving of 44.011 million yen.

In addition, after deciding to begin using in AY 2017 an ESCO service throughout the Kasumi area, in AY 2018, the University switched to a more energy-efficient air conditioning and heating system and saved in AY 2019 41.047 million yen on utilities compared to the average it incurred over AY 2014 to AY 2016.

ii) Effective asset management [Project No. 59]

ii-①)

[AY 2016 to AY 2018]

In AY 2016, the University sold its land in the Hatsukaichi area (the former yacht clubhouse of the School of Medicine), after recognizing the land had not been used since July 2012. Subsequently, the University set aside part of the income from the sale for a payment to the National Institution for Academic Degrees and Quality Enhancement of Higher Education and allocated the rest to maintaining the Kasumi Campus Heath Service Center.

In addition, in AY 2018, in accordance with the stipulations in Article 34-2 of the National University Corporation Act on leasing to third parties property, including land, the University sought permission from the Minister of Education, Culture, Sports, Science and Technology to lease its land in Ushita-shinmachi Higashi Ward Hiroshima City—formerly a staff apartment (Amamizuyama housing estate)—as a parking lot and was granted approval in March 2019.

Furthermore, after the expiration of land and building lease contracts with two vending machine companies, instead of renewing them, the University decided to only offer one contract through a competitive public bidding process. Consequently, in AY 2018, it received a lease payment of 32.382 million yen (i.e., an increase of 8.417 million yen than that of last academic year).

[AY 2019]

In December 2019, after receiving approval to lease property, including land, to third parties in accordance with Article 34-2 of the National University Corporation Act, the University concluded a contract to lease its land—formerly a staff apartment (Amamizuyama housing estate)—as a parking lot. The University concluded an agreement on leasing the land, beginning in March 2020, and the lease agreement is expected to generate about 36 million yen within a decade.

In AY 2019, the land and building lease contract concluded with a vending machine company generated an income of about 32.415 million yen. Part of this income was used to fund the following programs: 1) the Study Tour Abroad for Realization and Transformation (START) program, a short-term study abroad program designed to help freshmen students become accustomed to countries oversea; and 2) the START plus Program, a more advanced study abroad program designed to help sophomore and junior undergraduate students improve their English language skills.

ii-②)

[AY 2016 to AY 2018]

- To find out users' purposes and usage frequencies of its research equipment, the University examined 901 items generally worth at least 10 million yen and documented data as future reference for formulating research-facility maintenance plans.
- To maximize the use of its communal research equipment, the University registers items with the Network of University Research Equipment (operated by the Institute for Molecular Science of the National Institutes of Natural Science). Accordingly, new purchases were also registered, and the number of users subsequently increased as follows: internal users from 14,745 in AY 2015 to 17,119 in AY 2018; external users from 109 in AY 2015 to 150 in AY 2018).

[AY 2019]

- The University reorganized the Natural Science Center for Basic Research and Development, and in doing so, it reorganized its system for managing research equipment. To do so, the University appointed a working group, comprising faculty members and frequent users knowledgeable of its communal research equipment, to study users' purposes and usage frequencies, as well as the running costs, of its communal research equipment (and subsequently reduced the number of items from 280 to 72).

2. University-wide efforts

(Improving the University's financial status)

○ Reexamining efforts put into increasing income from conventional sources and finding new income sources

i) Attracting more external research funding, soliciting more donations, and increasing earned income [Project No. 56]

In AY 2016, the University formulated a strategy for drawing income from all types of external sources, from joint research funds to donations—a Strategy for Winning External Funding—and set full-time instructors' third-medium-term goal of securing external funding at an average amount of 8.5 million yen each.

Using its Strategy for Winning External Funding, the University helped full-time instructors secure an average external funding amount of 7.63 million yen each—an amount approximately 1.28 times larger than that estimated at the end of the second medium term—by implementing measures aimed at drawing more income from all types of external sources primarily through the following measures employed between AY 2017 and AY 2018: 1) sharing joint-research costs more properly with parties involved by implementing a newly introduced hourly-based method of splitting indirect costs; 2) increasing the number of lectures it offers on joint research; 3) soliciting more donations, such as by finding more sponsors for sponsor-named funds and the Fund for Uplifting Hiroshima University and Energizing the Local Communities of Hiroshima programs; and 4) collaborating with university research administrators in helping researchers win open-call funding provided by such organizations as the Japan Agency for Medical Research and Development and the Japan Science and Technology Agency. (In AY 2015, the average amount of external funding secured by full-time instructors totaled 5.95 million yen).

The University used its Strategy for Winning External Funding, formulated in AY 2016, to examine domestic and international trends of competitive funding, and based on that examination, it subsequently developed a plan for securing external funding in AY 2019.

Following that plan, the University helped full-time instructors secure an average external funding amount of 7.44 million yen each (12.871 billion yen/1,731 full-time instructors), an amount approximately 1.25 times larger than that estimated at the end of the second medium term, primarily through the following means to draw more income from all types of external sources: 1) improving its organizations (i.e., the Office of Research and Academia-Government-Community Collaboration and

the Open Innovation Platform) in ways that will enable providing researchers with seamless and systematic help, from strengthening their basic fundamental research skills to applying their findings in practical ways; 2) formulating a new fundraising strategy to expand the Hiroshima University Fund; and 3) initiating a Hiroshima University crowdfunding project to increase the Fund's number of donation methods.

ii) Effective asset management

To maximize the use of its assets and thereby increase its income, after keeping track of external users' purposes and usage frequencies of its rental facilities/equipment, as well as verifying the accuracy of such data, in AY 2017, to motivate schools/offices in charge of managing and promoting its rental facilities, the University promised to share 60% of the income from facility/equipment rental fees as incentive allocations. Consequently, income from facility rental fees in AY 2017 increased by 2.7 million yen. Subsequently, sharing incentive allocations became a regular practice.

To promote facility/equipment rental use, in March 2018, the University began posting the availability of its facilities on its website. In doing so, the University selectively posted only what external users would find useful as follows: 1) images of the exterior of its buildings and the interior of their rooms; 2) rental fees; 3) room capacity (listed in two ways: one by total; another by building); 4) equipment/devices; and 5) step-by-step rental procedures.

In AY 2017, the University began collaborating with Hiroshima Toyo Carp to produce and sell products featuring the team, and in a year and a half, sales totaled more than 10 million yen. The University sells the products through direct selling—a practice rarely employed by universities—and through the sales it has so far maintained a gross margin of at least 20%.

In addition, the University's land in Ushita-shinmachi Higashi Ward Hiroshima City, formerly a staff apartment (Amamizuyama housing estate), was approved for lease in March 2019 in accordance with Article 34-2 of the National University Corporation Act on leasing property, including land, to third parties. Subsequently, the land was leased in March 2020 as a parking lot, becoming a new income source expected to generate about 36 million yen within a decade.

The University also increased the lodging expenses of its Faculty Club and Yamanaka Hall, thereby increasing its income from accommodation fees by 1.477 million yen. In the Higashi-Senda area, it put up a number of billboards, found advertisers in April 2019, and received a 605,000 yen income from posting advertisements.

Furthermore, after thinking of more ways to maximize the use of its facilities to generate more income for improving its education and research environments, the University decided to sell the naming rights of its facilities and accordingly established necessary rules. To improve its brand image and also foster unity between existing students, faculty members, and alumni, the University created a school logo, featuring a phoenix, and also a mascot. The University will use the school logo and mascot for various purposes, including the promotion of club activities, events, and branded products.

○ Donation solicitation efforts

i) Strategically promoting the Hiroshima University Fund's fundraising efforts [Project No. 57]

The University regularly examined whether donation methods and public relations efforts were producing desired effects, and based on its examination, it identified and resolved underlying issues to expand the Fund.

The University increased the number of donation methods and also simplified procedures as follows: 1) in addition to accepting donations via its official website and by credit card, in AY 2018, the University also began to accept donations via Internet banking systems; and 2) recognizing that it was using a bank transfer form only accepted at the Japan Post Bank, the University switched to one that all banks generally accept. In addition, with the aim of receiving bequests from the local community, the University concluded an agreement with the Hiroshima Bank and held a joint seminar on bequests. Furthermore, after revisions in the tax law in AY 2018 expanded the scope of tax exemption on deemed transfer income and specified replacement assets to incorporate more entities, including national university corporations, to make it easier for itself to receive donations in kind, in March 2019, the University applied for a certificate.

Subsequently, to ask Hiroshima University Alumni Association members and other graduates for donations, the University produced a leaflet advertising the Fund and enclosed copies in Hiroshima University homecoming invitation letters and school alumni association newsletters. Furthermore, the University also enclosed copies of the leaflet when sending out public relations brochures to donors and guardians and subsequently received donations.

Consequently, increasing donation methods and simplifying procedures, as well as asking alumni and students' guardians for donations, increased the amount of donation provided to the Hiroshima University Fund as follows: from 183.935 million yen in AY 2016 and 127.774 million yen in AY 2017 to 1.244,537 billion yen in AY 2018.

ii) Setting up and expanding the Emergency Aid for Hiroshima University Students fund [Project No. 57]

In AY 2016, after tax law revisions reduced the amount of tax levied on funds that help students overcome economic hardship so that they can continue their studies, the University set up the Emergency Aid for Hiroshima University Students fund and subsequently redesigned the Fund's leaflet to emphasize the eligibility of the Emergency Aid fund for tax deduction. It also made donating to the Emergency Aid fund one of the options that potential donors of the Fund for Uplifting Hiroshima University and Energizing the Local Communities of Hiroshima could choose. Consequently, the amount of donation provided to the Emergency Aid for Hiroshima University Students fund increased as follows: from 6.215 million yen in AY 2016 and 24.238 million yen in AY 2017 to 39.739 million yen in AY 2018.

iii) Establishing the Fund for Uplifting Hiroshima University and Energizing the Local Communities of Hiroshima [Project No. 57]

In early celebration of its 75th anniversary coming up in 2024, in AY 2017 the University established a Fund for Uplifting Hiroshima University and Energizing the Local Communities of Hiroshima. The Fund for Uplifting Hiroshima University and Energizing the Local Communities of Hiroshima provides potential donors with the option of donating to the Emergency Aid for Hiroshima University Students fund and coordinates, in addition to traditional student support and international exchange programs, research support, education and research environment maintenance and community service programs.

In its earlier days immediately after being established, the fund's activities were limited to asking for donations to fund startups, and the fund only did so on campus. Subsequently, in April 2018, it began making fundraising efforts off campus as well. To solicit donations from companies and other external organizations, the University asked local chambers of commerce and industry for help in building an effective system, and subsequently with help primarily from alumni representatives of companies and other organizations in Hiroshima Prefecture, the University established the Fund Promotion Committee. In addition, in April 2018, it established the Office of Funding under the President's authority and assigned full-time staff. In July 2018, the Fund Promotion Committee held a general meeting to kick off its off-campus fundraising activities and subsequently followed it up with a Fund Promotion Committee Vice-Chairperson Meeting to solicit more donations. Consequently, through its fundraising efforts, the Fund for Uplifting Hiroshima University and Energizing the Local Communities of Hiroshima obtained the following amounts: 37.918 million yen in AY 2017 and 134.493 million yen in AY 2018.

iv) Establishing the Hiroshima University Satake Fund [Project No. 57]

After succeeding in April 2013 the Hiroshima University Supporters' Association—established in AY 1997 with donations from Satake Corporation and faculty and staff—the Hiroshima University Education and Research Support Foundation had long helped the University in funding its education and research activities, as well as its international exchange programs. The Foundation dissolved in the end of AY 2017, leaving an asset of 619.870 million yen. With this money, the University then started the Hiroshima University Satake Fund and continued funding its education and research activities, as well as international exchange programs.

v) Establishing the Hiroshima University Satake Memorial Hall Fund [Project No. 57]

In November 2018, the University established the Hiroshima University Satake Memorial Hall Fund with a donation of one billion yen, provided by Ms. Toshiko Satake—the Chairperson of Satake

Corporation—toward the renovation and maintenance of the Hiroshima University Satake Memorial Hall to protect the 16-year-old building from deterioration.

vi) Promoting fundraising efforts and formulating a new strategy [Project No. 57]

The University regularly examined whether donation methods and public relations efforts were producing desired effects, and based on its examination, it identified and resolved underlying issues to expand the Fund.

To increase its chances of receiving more donations, the University also tried asking individuals by enclosing the Fund's leaflet in alumni association newsletters and public relations brochures. Subsequently, after recognizing that enclosing the Fund's leaflet in public relations brochures worked best (raising 25.768 million yen in AY 2019 [an increase from 20.058 million yen received last academic year]), to solicit donations from existing students, alumni, and guardians, the University handed out leaflets at graduation and entrance ceremonies and also enclosed them in report cards it sent to guardians. In addition, to increase its chances of receiving bequests and donations in kind from the local community, the University concluded an agreement with the Hiroshima Bank, shared information with it, and held a seminar on bequests.

To increase its chances of receiving more donations from companies, the Fund Promotion Committee held a general meeting and a Fund Promotion Committee Vice-Chairperson Meeting, as it did in AY 2018, and asked participants how it could encourage more companies to donate. A number of company representatives suggested presenting annual plans for different types of funds with each fund's purpose of use and goal explicitly defined. Subsequently, the University decided to incorporate their suggestions into the Fund's next fundraising strategy.

In addition, learning from past experience that providing examples of how donations actually helped students works best in attracting both new and repeat donors, the University wrote a number of articles on donations helping administer student training programs. In addition, it asked a number of students to put their experience in writing and subsequently posted articles on the Fund's website and also incorporated them into leaflets.

Based on these new efforts, in March 2020, the University drafted a new fundraising strategy.

vii) Establishing school/office funds [Project No. 57]

To provide potential donors with different types of funds and thereby increase its chances of receiving donations, in April 2019, the University appointed Vice Deans/Deputy Directors in charge of school/office funds and asked schools/offices to define their purposes of using funds and then put effort into raising funds accordingly. Subsequently, schools/offices held discussions led by their Vice Deans/Deputy Directors and eventually decided to recategorize the following existing funds as options comprising the Fund for Uplifting Hiroshima University and Energizing the Local Communities of Hiroshima: 1) the HU Fund for Program of Medicine, School of Medicine, 2) HU Fund for Program of Health Sciences, School of Medicine, 3) HU Fund for School of Dentistry, and 4) HU Hospital Fund for the Management of the Family House. In addition, the University established a Hirodai Soka Fund as a new school/office fund and began soliciting donations.

Consequently, in AY 2019, the University's school/office funds received 81 donations totaling 10.534 million yen, bringing the Hiroshima University Fund's total amount of donations received in AY 2019 to 416.814 million yen.

○ Maximizing the use of financial analyses

i) Cost control

Based on its financial statements for the second medium term, as well as each year between AY 2016 and AY 2018, the University calculated its general and administrative expenses by individual segments (or accounting units) and analyzed financial fluctuations. The results were reported to all accounting clerical staff, who were asked to put more effort into thinking of ways to cut general and administrative expenses in allocating budgets thereafter. Consequently, between AY 2016 and AY 2018, the University averaged general and administrative expense percentages between 1.8% and 2.0%—figures smaller than those averaged by other national universities nationwide, which were between 2.8% and 2.9%.

In addition, in allocating budgets for AY 2020, the University set the reduction goal for back-office consumables costs at -2% of those incurred last academic year to encourage staff to put effort into reducing the general and administrative expense rate.

Furthermore, to make its financial status more transparent to external stakeholders, since AY 2018, the University offers the following information regarding its schools/graduate schools in the annexures to its financial statements: 1) costs, 2) profits, 3) financial data, and 4) non-financial data (e.g., education and research efforts and achievements).

I Business operation and financial status
(3) Self-inspection/evaluation and information disclosure goals
① Evaluation quality improvement goals

Medium-term goal	[29] Self-inspect/evaluate whether the quality of the University's education and research meets the level expected of comprehensive universities; subsequently, have self-inspection/evaluation results externally assessed to stimulate the University's education and research efforts.

Medium-term plan	AY 2019 plan	Progress		Descriptions and explanations (of plan implementation)	
		Mid-term	AY	Plan implementation by AY 2019	Plans to be implemented in AY 2020 and AY 2021
[60] Take the following actions to maintain the excellent quality of the University's education and research: 1) first, develop cross-departmental evaluation criteria and also have schools/offices define their own criteria needed to evaluate practices unique to their divisions; 2) then, have schools/offices perform self-inspections/evaluations every year; and 3) subsequently, ask external non-Japanese and Japanese members of the Administrative Council to assess self-inspection/evaluation results. In addition, ask the Student Experience in the Research University (SERU) Consortium to conduct a screening of whether the University's educational quality meets international standards.		IV		(Overview of AY 2016 to AY 2018 plan implementation) Each year, schools/offices self-inspected/evaluated their efforts and then asked external stakeholders to assess the self-inspection/evaluation results (i.e., received school/office organization evaluations). Subsequently, based on the external stakeholders' feedback, tailored to each school/office's unique education and research efforts, schools/offices developed measures to resolve underlying issues and implemented them. The progress made at schools/offices in implementing the measures were reviewed by the University's Evaluation Committee, and the President subsequently provided Deans/Directors with feedback on improving school/office efforts and resolving underlying issues. In addition, to maintain the excellent quality of the University's education, in AY 2017, the University asked the Student Experience in the Research University (SERU) Consortium to conduct a screening. Subsequently, based on the Consortium's feedback, the University took necessary action.	To maintain the excellent quality of its education and research, the University will continue to conduct self-inspections/evaluations of its education and research efforts, based on its own evaluation criteria, and then ask external stakeholders to assess the self-inspection/evaluation results. The University will also verify the reliability of its evaluation checklist, criteria, and system and improve as necessary. Furthermore, the University will self-inspect/evaluate whether the educational quality of its undergraduate/graduate degree programs meet international standards and improve as necessary.
	[60] Take the following actions to maintain the excellent quality of the University's education and research: 1) self-inspect/evaluate education and research efforts, based on cross-departmental and school/office-specific evaluation criteria; and 2) subsequently ask external stakeholders (including at least one external member of the Administrative Council) to assess the self-inspection/evaluation results. In addition, verify the reliability of the University's evaluation checklist, criteria, and system and improve as necessary. Furthermore, verify the reliability of the University's educational quality assurance system, based on the following assessments: 1) the results of the Student Experience in the Research University (SERU) Consortium's screening of whether the University's educational quality meets international standards; and 2) the results of the University's self-inspection/evaluation of its undergraduate/graduate degree programs, performed last academic year.		IV	(AY 2019 plan implementation) [60] Schools/offices self-inspected/evaluated their education and research efforts made between AY 2016 and AY 2018, based on the evaluation criteria specifically developed for evaluating the University's third medium-term operational performed in AY 2020, and then asked external stakeholders to assess the self-inspection/evaluation results (i.e., received school/office organization evaluations). Subsequently, based on the external stakeholders' feedback, tailored to each school/office's unique education and research efforts, schools/offices developed measures to resolve underlying issues and implemented them. The progress made at schools/offices in implementing the measures were reviewed by the President and the University's Evaluation Committee, who provided schools/offices with feedback on improving their efforts and resolving underlying issues. Subsequently, improvements were seen in school/office operations and reflected in the University's operational performance evaluation. Furthermore, after receiving feedback from the Student Experience in the Research University (SERU) Consortium, the University took the following actions: 1) verified the reliability of its own educational quality assurance system and 2) then, organized an annual evaluation report for AY 2018 on its undergraduate and graduate degree programs.	

I Business operation and financial status
(3) Self-inspection/evaluation and information disclosure goals
② Information disclosure and self-promotion goals

Medium-term goal	[30] Release self-inspection/evaluation results at a steady pace to fulfill the University's role as a responsible corporate citizen. [31] Promote the University to make it more widely recognized as a reputable school both in Japan and also countries overseas.

Medium-term plan	AY 2019 plan	Progress		Descriptions and explanations (of plan implementation)	
		Mid-term	AY	Plan implementation by AY 2019	Plans to be implemented in AY 2020 and AY 2021
[61] Release self-inspection/evaluation results in easy-to-understand formats online via the University website and the Japanese College and University Portraits website to fulfill the University's role as a responsible corporate citizen.		III		(Overview of AY 2016 to AY 2018 plan implementation) To publicize its practices and thereby fulfill its roles as a responsible corporate citizen, the University produced a number of promotion videos in both Japanese and English and uploaded them to its official website and YouTube. In addition, to make its new undergraduate and graduate schools widely known, the University developed Japanese and English websites devoted to each of them. (Websites devoted to the following schools were developed in the months provided below: 1) the School of Informatics and Data Science and the School of Integrated Arts and Sciences [including its Department of Integrated Global Studies] in April 2018 and 2) the Graduate School of Integrated Sciences for Life and the Graduate School of Biomedical and Health Sciences in April 2019.) Primarily aiming to reach out to prospective international students interested in studying in Japan, the University wanted to offer more information through its official website in languages other than Japanese. Therefore, it asked existing international students for help in translating its Admission Information for International Students brochure—previously only available in Japanese and English—into the following languages: Chinese, Arabic, and Spanish. In addition, the University updated its foreign-language websites the following number of times: 1) its English website was updated at least once a week; 2) its Chinese one, four times a month; 3) its Arabic and Spanish ones, about once a month each.	The University will regularly put effort into finding out whether its self-promotion efforts are producing desired effects and also continue recruiting and asking public relations helpers for help to improve its self-promotion practices. The University will also continue to recruit and ask public relations advisers for help in identifying and resolving issues underlying its self-promotion strategies.
	[61] Release school/office self-inspection/evaluation results online via the University website and the Japanese College and University Portraits website to fulfill the University's role as a responsible corporate citizen. In addition, regularly examine whether self-promotion efforts are producing desired effects and improve as necessary.		III	(AY 2019 plan implementation) [61] To regularly examine whether the data and self-promotion messages it presents are easily understood and thereby ensure it fulfills its role as a responsible corporate citizen, in AY 2019, the University conducted three surveys with help from its 28 external public relations monitors. Based on the survey results, the University improved its official International Exchange website, as well as the layout of its public relations brochure "HU-Plus." In addition, the University held a meeting with its public relations advisers, comprising external intellectuals, and also subsequently maintained contact with them. Based on their highly specialized	

				knowledge and know-how, the advisers provided the University with helpful advice on how to resolve issues underlying its self-promoting efforts.	
[62] Promote the University's educational, research, and medical achievements, as well as community service participation, through its website and social media accounts, and in doing so, present information in viewer-friendly ways to increase the University's domestic and international recognition as a reputable school.		IV		(Overview of AY 2016 to AY 2018 plan implementation) [62] The University's two public relations brochures—the existing students edition and guardians edition—were unified as the HU-Plus, and 31,000 copies were distributed to widely promote current efforts. To increase its domestic and international recognition as a reputable school, the University added to its existing Japanese, English, and Chinese lineup, official websites in Spanish and Arabic. To increase the appeal of its self-promotion efforts targeting prospective students, the University decided to incorporate students' perspectives into its efforts, and with help from 23 students in October 2017 it formed its first team of Student Public Relations Directors. The Student Public Relations Directors contributed articles written from their perspectives to the HU-Plus public relations brochure, as well as the University's official website. Their social media skills also greatly helped the University in actively promoting itself. With Student Public Relations Directors help, in addition to its existing Twitter and Facebook accounts, in December 2017, the University opened an account on Instagram, through which it offers an endless array of all kinds of information. The University also began promoting itself through the mass media. The University actively promotes students' activities and scholars' education and research efforts on radio and television programs. In AY 2018, its Tokyo Office began providing local community members with a seminar series titled "Hiroshima University Tamachi Lab" and held five seminars.	The University will continue to promote itself through its social media accounts and also apply web analytics to finding out ways to attract more visitors to its official website.
	[62] Continue promoting the University through its social media accounts and examine whether such efforts are producing desired effects. In addition, examine whether efforts put into disseminating research findings through the Hiroshima University Institutional Repository and Hiroshima University Press are producing desired effects and improve as necessary.		IV	(AY 2019 plan implementation) [62] The University continued to maximize the use of its social media accounts for self-promotion. On international holidays, the University used its Twitter account to promote activities and research findings relevant to each day. In addition, with help from Student Public Relations Directors, the University used its Instagram account to promote students' activities to high school students. The number of followers of each social media account increased from last academic year as follows: 1) on its Japanese Facebook account, the University attracted 16,210 (AY 2018: 14,837) and on its English account, 1,854 (AY 2018: 1,260); 2) on its Twitter account, 14,155 (AY 2018: 13,150); and 3) on its Instagram account, 4,530 (AY 2018: 3,009). In addition, to promote their research findings in ways that will demonstrate their relevance to everyday life, the University's research institutions and facilities collaborated with the Project Promotion Division of the Office of Research and Academia-	

				Government-Community Collaboration in creating Web content introducing themselves.	
[63] Publish more papers in international academic journals, articles in educational and research information magazines, and news releases in international media sources and thereby enhance the University's excellent reputation.		III		(Overview of AY 2016 to AY 2018 plan implementation) [63] To actively promote scholars' research findings and other activities, the University began publishing articles in international newsletters. It regularly published articles in QS Asia Quacquarelli Symonds' *News-2-Wow-U* and the Japan Society for the Promotion of Science San Francisco Office's Newsletter. In addition, each year, to promote scholars' research findings along with its latest news in English, the University produced three volumes of the HIROSHIMA UNIVERSITY Update (magazine) and also uploaded them to its official website. To enhance its reputation, the University also sent the magazine to its interuniversity partner institutions overseas (which total about 200). In addition, it asked faculty members (instructors) to send them to their fellow scholars overseas. Furthermore, to enhance its international reputation, the University published news releases of scholars' research findings on Eurek Alert! and Alpha Galileo—international online press release platforms.	To enhance its reputation, the University will continue to actively promote itself internationally by regularly publishing news releases of scholars' research findings along with other activities in international newsletters. In addition, the University will put effort into strengthening its self-promotion system, such as by appointing international public relations staff and also collaborating more closely with its science communicators.
	[63] Increase the effectiveness of the University's measures aimed at promoting scholars' excellent research findings to international academic journals and media sources. In addition, to do so, improve the University's public relations system, based on last academic year's evaluation of the University's self-promotion efforts.		III	(AY 2019 plan implementation) [63] To help staff increase their awareness of outbound self-promotion, the Department of Public Relations and the Project Promotion Division of the Office of Research and Academia-Government-Community Collaboration jointly held a Overseas Self-promotion Seminar. In addition, the University held lectures for senior executives (e.g., Officers, Deans/Directors) and also welcomed representatives of other universities to its public relations seminars, as well as thought-sharing sessions. In addition, the University regularly uploaded the following number of posts about scholars' research findings and other activities in the international newsletters provided below: 1) four in the QS Asia Quacquarelli Symonds' *News-2-Wow-U* (four adopted) and 2) six in the Japan Society for the Promotion of Science San Francisco Office's Newsletter (three adopted). The University is *News-2-Wow-U*'s top contributor of posts. The University also produced three volumes of the HIROSHIMA UNIVERSITY Update magazine, which offers its latest news in English. In addition, to enhance its reputation, it sent them to its 280 global interuniversity partner institutions and (about 50) presidents of universities overseas by email. Furthermore, the Department of Public Relations regularly contacted the Project Promotion Division of the Office of Research and Academia-Government-Community Collaboration to learn from its science communicators about scholars' research findings, as well as other information worthy of being featured in international new releases, and incorporated them into the following number of posts uploaded to the platforms provided below: 17 to EurekAlert! (AY 2018: 20) and 17 to AlphaGalileo	

				(AY 2018: 20). In addition, the University began publishing press releases on Asia Research News (and in AY 2019, it published three articles).	

(3) Self-inspection/evaluation and information disclosure goals

1. Points to note

① Evaluation quality improvement goals

i) University-wide self-inspection/evaluation efforts [Project No. 60]

[AY 2016 to AY 2018]

- Each year, schools/offices self-inspected/evaluated their efforts and then asked external stakeholders (including at least one external member of the Administrative Council) to assess their self-inspection/evaluation results (i.e., received school/office organization evaluations)—a practice continued since AY 2008. Subsequently, based on the external stakeholders' feedback, tailored to each school/office's unique education and research efforts, schools/offices developed measures to resolve underlying issues and implemented them. The progress made at schools/offices in implementing the measures was reviewed by the University's Evaluation Committee, and the President subsequently provided Deans/Directors with feedback on improving unique school/office features and resolving underlying issues.
  In AY 2017, the University was asked to cultivate human resources with practical skills needed to carve out careers in the United Nations, as well as other intergovernmental organizations. In response, the University ran a number of PDCA cycles and developed an achievement-based program for cultivating international cooperation practitioners, thereby improving the quality of its education and research.
  In AY 2018, the University received a suggestion pointing out that the School of Dentistry needs to set for itself a student pass-rate goal for the national dental examination and work toward achieving it by improving its educational practices in ways that will help more students pass. Subsequently, the University decided to keep self-study rooms open longer—until 10 p.m.—for the School of Dentistry's students in all grades, excluding those in sixth grade, and took measures to ensure safety by installing security cameras in the hallways.
  Details on the items below were conveyed to all participants who took part in a thought-sharing session held with external members of the Administrative Council, including all Officers and Deans/Directors: 1) school/office self-inspection/evaluation results; 2) external assessments of the results (i.e., school/office organization evaluations); 3) measures developed based on the assessments, as well as the progress made in implementing them; and 4) feedback offered to schools/offices by the president on improving efforts and resolving underlying issues.

[AY 2019]

- In preparation for evaluating its AY 2020 third-medium term operational performance, the University needed to restructure its evaluation system, and to do so, it performed a pilot test of its new self-inspection/evaluation method. The results of the test were incorporated into the School/Graduate School Status Reports for the three years from AY 2016 through AY 2018—as a pilot for the four years from AY 2016 through AY 2019—and were reviewed in November 2020 by external stakeholders (i.e., received school/office organization evaluations) before subsequently being submitted to the National Institution for Academic Degrees and Quality Enhancement of Higher Education. Subsequently, based on the external stakeholders' feedback, comprising 102 suggestions, tailored to each school/office's unique education and research efforts, schools/offices developed measures to resolve underlying issues and implemented them. The progress made at schools/offices in implementing the measures were reviewed by the President and the University's Evaluation Committee, who provided schools/offices with feedback on improving their efforts and resolving underlying issues. In addition, schools/offices improved their operations and reflected improvements in the third-medium term evaluation of the University's education and research efforts—the School/Graduate School Status Reports—enhancing the effectiveness of the University's PDCA cycles.
- Details on the items below were conveyed to all participants of the thought-sharing session (held in March 2020) with external members of the Administrative Council, including all Officers and Deans/Directors: 1) school/office self-inspection/evaluation results; 2) external assessments of the results (i.e., school/office organization evaluations); and 3) actions that were taken, based on the assessments. As an example of actions schools/offices took in response to the assessments of their efforts, after being pointed out that in filling in their School/Graduate School Status Reports' section titled "Research Activities Conducted with Help from Community Members," instead of only describing scholars' research projects, they should include more information, schools/offices were reminded of a number of efforts they put into helping regions recover from the Great East Japan Earthquake and described a number of educational opportunities they offered and emergency response activities they undertook in Fukushima Prefecture to help minimize radiation exposure.

ii) Education quality assurance efforts (made with help from the Student Experience in the Research University [SERU] Consortium) [Project No. 12 & 60]

[AY 2016 to AY 2018]

- To undertake the Student Experience in the Research University (SERU)'s education quality assurance screening, the University appointed a working group, which in AY 2016 held meetings on May 20 and September 29 to prepare to administer the SERU survey throughout the University. Subsequently, from December 14, 2016, to February 3, 2017, the working group asked (undergraduate) students throughout the University to participate in the survey and subsequently received responses from 761 (about 7%).
  In addition, the University developed an achievement-based education program, and in June 2017, it asked key member universities of the Student Experience in the Research University (SERU) Consortium to conduct a peer review of the program. Subsequently, based on the peer-review results that it received through SERU's On-site Consortium Team Survey Results Report, the University considered ways to improve the program.

[AY 2019]

- After receiving suggestions through the Student Experience in the Research University (SERU) Consortium's On-site Consortium Team Survey Results Report, the University recognized the need to put students at the center of learning and help them see their own progress. Accordingly, on April 1, 2020, to provide students with consultation services and help with their studies and thereby significantly improve its educational environment, the University decided to establish the Center for Academic Practice and Resources.

② Information disclosure and self-promotion goals

i) Self-promotion [Project No. 61]

[AY 2016 to AY 2018]

○ Creating Hiroshima University self-promotion videos and websites
  To promote the School of Informatics and Data Science and the School of Integrated Arts and Sciences (including its Department of Integrated Global Studies), newly established in April 2018, the University developed in July 2017 both Japanese and English websites devoted to them, as well as their departments. In addition, in November 2017, promotional videos featuring the schools were filmed and uploaded to YouTube. A total of 20,418 Internet users accessed the schools' Japanese websites; 1,866 accessed their English versions. A total of 2,254 YouTube users viewed the University's promotional video featuring the School of Informatics and Data Science; 1,680 viewed its Japanese video featuring the School of Integrated Arts and Sciences (and its Department of Integrated Global Studies), while 343 viewed its English version (by the end of March 2018).
  To promote the Graduate School of Integrated Sciences for Life and the Graduate School of Biomedical and Health Sciences, both newly established in April 2019, the University developed in October 2018 both Japanese and English websites devoted to them. The Graduate School of Integrated Sciences for Life's Japanese website welcomed 32,291 visitors, while its English version welcomed 2,981; the Graduate School of Biomedical and Health Sciences' Japanese website welcomed 13,977 visitors, its English version 2,101.

○ Developing official websites in languages other than Japanese and English
The languages in which the University's official websites are available comprise not only Japanese and English but also Chinese, Arabic, and since September 2016, Spanish.

ii) Self-promotion [Project No. 62]
[AY 2016 to AY 2018]
To have the effectiveness of its self-promotion efforts evaluated from an external perspective, the University participated in a contest run by the Japan Advertisers Association, titled "Web Grand Prix." Consequently, the University's website won the Company Grand Prix division's second prize of the Asakawa award for having a high accessibility rate.
In addition, the University began a new practice of seeking professional advice on self-promotion and asked three external intellectuals to be its Public Relations Advisers. With help from highly specialized public relations advisers with different backgrounds and the knowledge, as well as know-how, needed to come up with unique and unconventional ideas from international, as well as multi-faceted, perspectives, the University will steadily increase its brand value and recognition.
The University also actively promoted its students' activities and scholars' education and research efforts through radio and television programs, as well as other mass media sources. For instance, during the radio program it promoted itself through, the University had a slot titled "Hiroshima University Radio Campus" reserved for promoting its appeal to junior high and high school listeners. Furthermore, in collaboration with the School of Informatics and Data Science, established in April 2018, the University's Tokyo Office began providing local community members with a seminar series titled "Hiroshima University Tamachi Lab" and held five seminars, welcoming 139 participants.

[AY 2019]
The University continued putting effort into promoting itself through the mass media. The University's student promoted their extracurricular activities and research findings through the following sources: 1) a radio program that reserves a slot for the University, titled the Hiroshima University Radio Campus (twice monthly; five minutes each); and 2) a television program that reserves a slot for the University's student circles to introduce their activities (one weekly; 10 minutes each).
The Tokyo Office's seminar series, the Hiroshima University Tamachi Lab, which began being offered in AY 2018, was also offered this academic year. In collaboration with the School of Informatics and Data Science, the Tokyo Office offered a series of six seminars, titled "Informatics Science Wonderland," on the applications of AI and data science by scholars at their forefronts (welcoming 96 participants).
In addition, the University created a school logo, featuring a phoenix, and a mascot based on the logo's phoenix, both of which will be widely used in designing branded products and promoting extracurricular activities on and off campus. In doing so, the University aims to foster unity between the faculty, staff, and students and also increase momentum for promoting its appeal.
Furthermore, the University continued to maximize the use of its social media accounts for self-promotion. On international holidays, the University used its Twitter account to promote activities and research findings relevant to each day. For example, to promote its excellent educational facilities to junior high and high school students, on Space Day, or September 12, the University tweeted a message introducing "Kanata"—its optical and near-infrared telescope.
In addition, during Healthy Teeth and Mouth Week, or between June 4 and 10, the University promoted a tablet developed with its scholars' research findings made during an industry-academia research project. On Coffee Day, or October 1, it tweeted a message introducing its scholars' research findings about the positive effects coffee has on our health.
In addition, to promote their research findings in ways that will demonstrate their relevance to everyday life, the Hiroshima Astrophysical Science Center and Amphibian Research Center collaborated with the Project Promotion Division of the Office of Research and Academia-Government-Community Collaboration in creating English webpages introducing themselves.

I Business operation and financial status
(4) Other business operation goals
① Facility/equipment maintenance and usage goals

Medium-term goal	[32] Manage facilities comprehensively, based on the Campus Master Plan for Maintaining Facilities, and thereby maintain the appeal of the University's campuses.

Medium-term plan	AY 2019 plan	Progress		Descriptions and explanations (of plan implementation)	
		Mid-term	AY	Plan implementation by AY 2019	Plans to be implemented in AY 2020 and AY 2021
[64] Prepare venues for student-instructor interactions, including active-learning lessons. In addition, find out the amount of funding the central government will be providing, and with that amount in mind, renovate old facilities, implement measures to make facilities more energy-efficient, and conduct maintenance work to ensure safe and worry-free education and research environments.		IV		(Overview of AY 2016 to AY 2018 plan implementation) • The University formulated the Hiroshima University Campus Master Plan 2016 and an action plan for executing it. • Based on its action plan for executing the Hiroshima University Campus Master Plan 2016, construction work was conducted on the following campuses to maintain or renovate the items provided below: 1) (Kasumi) disaster prevention infrastructure/equipment, 2) (Higashi-Hiroshima) electrical substation equipment, 3) (Kasumi) Dental Building C, 4) (Higashi-Hiroshima) Graduate School of Engineering's D4 Building, and 5) (Higashi-Hiroshima) School of Engineering's Lecture Building B1 & B4. • Between AY 2017 and AY 2018, the University reduced its electricity consumption by 372,190 kWh by taking the following environmental preservation and active energy-saving measures: 1) switched outdoor lights to LED bulbs, 2) replaced old air-conditioners with more energy-efficient ones, 3) switched indoor lights to LED bulbs, 4) switched to energy-efficient electrical substations, and 5) changed window glasses to double-glazing. In addition, to optimize maintenance work on Kasumi Campus, the University began using a new management-included ESCO service. • Furthermore, the University formulated a Hiroshima University Infrastructure Life Elongation Plan (action plan) aimed at maintaining its long-term sustainability. • With funding from various sources, the University cleared the first floor of the Clinical Research Building 2 in preparation for building the Cause of Death Investigation Education and Research Center (438 m^2). Although the prospects of receiving funding from enough sources to arrange for building this Center were grim at the time of formulating this medium-term plan, the University succeeded in convincing stakeholders of the need and secured funding for clearing an area of 438 m^2.	To prepare venues for student-instructor interaction, including active-learning lessons, the University will carry out the following types of work on the facilities in the areas provided below: 1) renovation of Biology Building B, maintenance of the Amphibian Research Center, renovation of the School of Engineering's lecture rooms, renovation of extra high voltage electrical substations, and maintenance of international exchange facilities in the Higashi-Hiroshima area; and 2) maintenance of the Research Institute for Radiation Biology and Medicine's experiment and research building in the Kasumi area. In addition, the University will renovate old facilities, implement measures to make facilities more energy-efficient, and conduct maintenance work to ensure safe and worry-free education and research environments, based on its annual plan for managing facilities; subsequently, it will inspect and evaluate its efforts to formulate an action plan for the following term. Maintenance work being performed on the international exchange facilities in Higashi-Hiroshima City, jointly funded with the City, will be completed in September 2021 (funding from Higashi-Hiroshima City: 500 million yen; own funds: 1 billion yen; land size: about 4,000
	[64] Conduct maintenance work on the University's education and research facilities, including renovating the East Library (on Higashi-Hiroshima Campus), and also prepare venues for student-instructor interaction, including active-learning lessons, based on the action plan for executing the Campus Master Plan for		IV	(AY 2019 plan implementation) [64] • Based on the action plan for executing the Hiroshima University Campus Master Plan 2016, the University renovated its libraries (on the Kasumi and Higashi-Hiroshima campuses); it also renovated the Comprehensive Research Building A on Kasumi Campus and thereby secured an area of 1,775 m^2 for active-learning lessons. In addition, construction work was conducted on	

	Maintaining Facilities. In addition, renovate old facilities, implement measures to make facilities more energy-efficient, and conduct maintenance work to ensure safe and worry-free education and research environments, based on the annual plan for managing facilities.			Higashi-Hiroshima Campus to renovate the items provided below: 1) farm facilities; 2) the exterior walls of the School of Education's building, including Research Building C; 3) the waterproof roof of the Environmental Research and Management Center building; 4) the paving of on-campus roads; and 5) the bicycle parking spaces. • The implementation percentage of the action plan for executing the Hiroshima University Campus Master Plan 2016 was 92.8%. • With funding from various sources, the University maintained the Fukuyama Transport Komaru Nigiwai Pavilion multipurpose hall (159 m^2) and the Higashi-Hiroshima Dream Field soccer ground (artificial turf field of 7,883 m^2). With these maintenance operations, the area maintained with help from various funding sources, which was 438 m^2 at the end of AY 2018, totaled 8,480 m^2 by the end of AY 2019. Furthermore, the University concluded an agreement with Higashi-Hiroshima City on jointly funding the maintenance of the international exchange facilities in the City (funding from Higashi-Hiroshima City: 500 million yen; own funds: 1 billion yen; land size: about 4,000 m^2: expected to be completed: September 2021). • When Kasumi Campus began using the ESCO service, it also began receiving funding (150 million yen) under the Ministry of Environment's Advanced technologies promotion Subsidy Scheme with Emission reduction Targets (ASSET) program, which enabled the University to reduce utility costs earlier than it expected. • The management-included ESCO service provided to all areas of the Kasumi Campus enabled reducing in AY 2019 electricity consumption by 267 kWh, gas by 1.06 million m^3, and water and sewage by 59,500 m^3, cutting CO_2 emissions by 3,735 tons. • In addition, the University formulated the Hiroshima University Infrastructure Life Elongation Plan (individual facilities).	m^2).
[65] Maximize the use of existing facilities, and to do so, reallocate space currently assigned to education and research purposes, and secure about 1.5 times more space for communal use.		IV		(Overview of AY 2016 to AY 2018 plan implementation) • To improve the balance of space allocation between teachers and also secure more space to provide for new needs, the University developed an instructor research-space request system. • The University also studied users' purposes and usage frequencies of facilities, organized issues into a report, and subsequently addressed them. • In addition, it learned of a redevelopment plan in the Kasumi area and took the opportunity to rebuild its old clinic building into a communal building. • One of the goals of the medium-term plan was to secure about 1.5 times more space for communal use than AY 2015; the University achieved that goal by the end of AY 2017—earlier than it expected. • In AY 2018, the University adopted the Ministry of Education, Culture, Sports, Science and Technology's space charge system (a land-size based subsidy program)—although doing so was not originally in its medium-term plan—and thereby developed a system that will enable securing enough funding for renovations needed to maintain facilities.	To secure enough space needed to reorganize education and research organizations, the University will optimize the allocation of space to education and research purposes by implementing its instructor research-space request system, studying users' purposes and usage frequencies of facilities, and using the space charge system. According to its estimate, the University can expect to soon secure a communal space about 1.8 times larger than that at the completion of its second medium-term plan—an overachievement of its original goal of 1.5 times. In addition, the University will inspect and evaluate its efforts to formulate an action plan for the following term.

	[65] Optimize the allocation of space to education and research purposes, expand space for communal use, and secure more space for the reorganization of education and research organizations, and to do so, implement the instructor research-space request system, study users' purposes and usage frequencies of facilities, and use the space charge system.		IV	(AY 2019 plan implementation) [65] • Based on requests from teachers living in the Higashi-Hiroshima Danchi apartments, submitted through the instructor research-space request system in AY 2019, the University re-estimated the amount of space that it will need in order to provide for needs expected to arise from the reorganization of graduate schools. Subsequently, it developed a number of charts of estimated space need and submitted them to schools/offices. • The University secured more space for communal use, based on users' purposes and usage frequencies of its facilities, and subsequently optimized the allocation of space to provide for needs expected to arise from the reorganization of education and research organizations. • In addition, to secure enough funding for renovations needed to maintain facilities, the University implemented the space charge system and secured 44.465 million yen. Furthermore, it reexamined the subsidy amount it was receiving per unit of land area and subsequently expanded its use of the space charge system. • The size of communal space, which at the end of AY 2018 was 1.59 times larger than that measured at the end of the second medium term, increased to 1.68 times larger by the end of AY 2019.	

I Business operation and financial status
(4) Other business operation goals
② Safety management goals

Medium-term goal	[33] Create a safety culture, and to do so, strengthen the University's safety management system and help faculty and staff increase their awareness of risk management, as well as safety and health.

Medium-term plan	AY 2019 plan	Progress		Descriptions and explanations (of plan implementation)	
		Mid-term	AY	Plan implementation by AY 2019	Plans to be implemented in AY 2020 and AY 2021
[66] Help faculty and staff increase their awareness of risk management, as well as safety and health, and to do so, inspect and evaluate the University's safety management system and also provide faculty and staff with training and lectures on safety and health periodically every year.		IV		(Overview of AY 2016 to AY 2018 plan implementation) [66] The University inspected and evaluated its safety and health management practices, including their legality, and examined what adaptations would need to be made to its safety and health management system to accommodate changes due to the reorganization of its graduate schools. It also provided faculty, staff, and students with better safety education to raise their awareness of risk management, as well as safety and health.	The University will establish its safety and health system, based on its safety and health practices, as well as awareness training programs, implemented over the years. In addition, it will continue providing faculty, staff, and students with better safety education to help them increase their awareness of risk management, as well as safety and health.
	[66] Improve the University safety and health management practices, based on the results of last academic year's inspection and evaluation of the University's safety and health management system, including its legality. Provide faculty, staff, and students with better safety education and thereby help them increase their awareness of risk management, as well as safety and health.		IV	(AY 2019 plan implementation) [66] • The University inspected the safety and health practices it employed last academic year, and based on that inspection, it established safety and health goals, as well as policies, for AY 2019 and announced them subsequently in April. • To comply with the Health Promotion Act (revised on July 1, 2019), in January 2020, the University banned smoking on campus. • To help students, faculty, and staff increase their awareness of risk management, in May and November, the University conduct safety confirmation drills with its emergency contact system. Subsequently, in April 2002, following the outbreak of the novel coronavirus pandemic, the same emergency contact system helped the University's emergency response headquarters quickly contact students, faculty, and staff to confirm their state of health, as well as whereabouts, and subsequently share that information among themselves to develop an effective response strategy. • In October, the University provided new teachers with a risk management seminar as part of their newcomer training program.	

I Business operation and financial status
(4) Other business operation goals
③ Legal compliance goals

Medium-term goal	[34] Ensure reliable, transparent, healthy, and proper administration of the University with full compliance with the law, and thereby fulfill the University's role as a responsible corporate citizen.

Medium-term plan	AY 2019 plan	Progress		Descriptions and explanations (of plan implementation)	
		Mid-term	AY	Plan implementation by AY 2019	Plans to be implemented in AY 2020 and AY 2021
[67] Take the following measures to prevent scientific misconduct and the misuse of research funds: 1) provide those who intend to conduct research at the University and those who want to use its research funds with education on research ethics, laws related to research, and the prevention of research fund misuse; and 2) require those who use its research funds to submit a fund-use statement each relevant year.		III		(Overview of AY 2016 to AY 2018 plan implementation) Each year, the University provided faculty members with seminars on research ethics, including legal compliance, and students with a standardized program designed to help them increase their awareness of research ethics. In addition, freshmen undergraduate students were provided with a course on the basics of research ethics. The University also formulated a Hiroshima University Plan for Preventing the Misuse of Research Funds (fifth action plan), and based on it, it prepared a survey designed to assess survey takers' awareness of different types of misuses of research funds. The survey was then administered with help from executive officers as survey takers. Consequently, the University found out that some items seemed to be less recognizable as cases of misuse than others did. Accordingly, measures were subsequently taken to thoroughly inform faculty, staff, and students of such generally less recognizable cases of misuse and reminded them that such cases would nevertheless NOT be tolerated. The University also provided new teachers with education on the proper use of research funds as part of their newcomer training program. In addition, to prevent the misuse of research funds, measures were taken to ensure that those who use its funds will submit a fund-use statement each relevant year.	The University will provide faculty and students with education on research ethics and legal compliance, based on its plan for systematically preventing scientific misconduct and the misuse of research funds. In addition, measures will be taken to ensure that those who use its research funds will submit a fund-use statement confirming that they fully understand they are legally responsible for observing applicable laws and would be subject to disciplinary action should violation occur.
	[67] Provide faculty and students with education on research ethics and legal compliance, and to do so, implement the University's plan for systematically preventing scientific misconduct and the misuse of research funds. In addition, take measures to ensure that those who use the University's research funds will submit a fund-use statement confirming that they fully understand they are legally responsible for observing applicable laws and would be subject to disciplinary action should violation occur.		III	(AY 2019 plan implementation) [67] The Scientific Misconduct Prevention Office provided faculty members with four seminars on research ethics, including legal compliance, between August and January. Students were provided with a standardized program, in addition to which freshmen undergraduate students were given more research ethics education in one of their liberal arts courses, titled "Introduction to University Education." To help those who will be participating in the University's new teacher training program (in April and October) and/or the Chugoku and Shukoku areas' national university financial accounting training program (entry level), the University offered a seminar on accounting standards, which included a lecture on the proper use of research funds. In addition, to prevent the misuse of research funds, measures	

				were taken to ensure that those who use the University's funds will submit a fund-use statement.	
[68] Take the following actions to maintain the legality, integrity, and reliability of the University's operations: 1) provide faculty and staff with training on personal information protection to maintain excellent information protection standards and 2) provide students and faculty members with periodic seminars on legal compliance.		III		(Overview of AY 2016 to AY 2018 plan implementation) Each year, the University provided training on personal information protection to the following stakeholders: 1) new faculty members (through new teacher training programs [in April and October]) and 2) existing faculty, staff, and healthcare workers. All training sessions included satisfaction surveys, based on which both the content and methods of future training programs were improved. Students were provided with video-based lectures on personal information protection each year before attending the Qualified Teaching Assistant Qualification test preparation seminar. In addition, to examine whether schools/offices are properly handling personal information and corporate documents, each year, the Audit Office collaborated with stakeholders in auditing 17 to 19 schools/offices. Schools/offices found as not properly handling personal information and corporate documents (e.g., continuing to store documents even after the end of their preservation period or failing to register corporate document files) were instructed to improve their practices.	To increase the effectiveness of its practices regarding the protection of personal information containing individual identifiers, the University will examine its practices regarding internal audits, as well as student, faculty, and staff training programs, employed last academic year, and improve them as necessary. In addition, to prepare itself for the fourth medium-term, the University will examine whether its auditing functions and training programs are producing the best results.
	[68] Optimize internal audit functions, as well as student, faculty, and staff training programs, in ways that will increase the effectiveness of the University's practices regarding the protection of personal information containing individual identifiers. In addition, in preparation for the following term, examine whether auditing functions and training programs are producing the best results.		III	(AY 2019 plan implementation) [68] The University provided training on personal information protection to the following stakeholders, welcoming the number of participants given below: 1) new faculty members (through new teacher training programs [in April and October; 258 participants]) and 2) existing faculty, staff, and healthcare workers (in December; 77 faculty/staff, 67 healthcare workers). In addition, all training sessions included satisfaction surveys, based on which both the content and methods of the training programs to be administered in AY 2020 were improved. Students were provided with video-based lectures on personal information protection before the Qualified Teaching Assistant Qualification test preparation seminar. In addition, to examine whether schools/offices are properly handling personal information and corporate documents, between September and October, the Audit Office collaborated with stakeholders in auditing 16 offices/schools. Schools/offices found as not properly handling personal information and corporate documents (e.g., continuing to store documents even after the end of their preservation period) were instructed to immediately improve their practices. After the audits, schools/offices were provided with feedback through audit reports and subsequently asked what measures they took to improve their practices.	
[69] Take the following actions to reduce system vulnerability and ensure business continuity in the event of a disaster: 1)		IV		(Overview of AY 2016 to AY 2018 plan implementation) [69] • To strengthen its information security system, the University regularly reviewed and revised its information security rules and policies.	[69] After completing the implementation of information security measures and cloud migration of main office servers,

complete cloud migration of main office servers, 2) manage information security, and to do so, follow the information security policy and its implementation procedures that were revised as part of the second medium-term plan, as well as the University's cloud service use guideline.				• In addition, it performed careful self-inspections and evaluations of its information security system and also conducted internal and external audits. By doing so, the University expanded the scope of its Information Security Management System (ISMS) certification to include the ISMS Cloud Security certification (ISO/IEC 27017: Cloud Service Customer) before other universities in Japan. • To properly manage its critical information system, the University took the following actions: 1) linked IP addresses, MAC addresses, and Administrator IDs of devices with public IP addresses accessible from outside the University to enable easier management; 2) introduced a system that enables administrators of such devices to set network access restrictions by themselves; and 3) made it a practice to identify devices using online services requiring them to access public IP addresses outside the University by following the procedures on the checklist provided in the Hiroshima University Cloud Service Use Guideline. • The University continued providing faculty, staff, and students with the entire series of information security compliance training programs administered since AY 2011. In addition, faculty and staff were provided with information security seminars designed to help them increase their knowledge and awareness of information security. • To enable quick response to information security incidents, the University provided a Computer Security Incident Response Team, comprising executive officers, faculty, and staff (excluding part-timers and those on leave) and students (excluding part-timers, those on leave, and those studying abroad) with information security incident response training, comprising lectures, drills, and evaluation, on how to deal with targeted attacks and what procedures to follow if notified of unauthorized access attempts or other information security incidents. • To protect all internal Internet users from such threats as targeted attack emails and thereby prevent serious information security incidents, as it has done since AY 2017, the University took all measures recommended by the National Institute of Informatics' NII Security Operation Collaboration Services.	contained in its medium-term plan, the University will evaluate and analyze the outcome of those actions.
	[69] Complete cloud migration of main office servers, and in doing so, based on evaluations and analyses of cloud migrations implemented last academic year, assess whether any other servers originally outside the plan need to be included and switch any servers to cloud computing as necessary. In addition, begin implementing the revised version of the Hiroshima University Basic Information Security Measures Plan, starting with items with higher order of priority.		IV	(AY 2019 plan implementation) [69] • The University updated its office information systems and then disconnected its critical office information systems from the Internet. By using device virtualization technology, the University disconnected from the Internet all devices in offices handling critical information. In addition, by using VPN technology, it enabled accessing office information systems without location restrictions. Consequently, 1,420 devices gained remote access to office information systems, enabling staff to telework via the Internet. • The University began cloud migration of its educational affairs servers—the last of its core business servers yet to have been switched to cloud computing. • In addition, based on the Ministry of Education, Culture,	

				Sports, Science and Technology's Tightening University and Other Institutional Cyber Security Measures (notice), the University revised in September 2019 the Hiroshima University Basic Information Security Measures Plan (AY 2019–AY 2021 edition), originally formulated in March 2019.	

(4) Other points to note about business operations

1. Points to note

Facility management efforts

i) Maintaining, managing, and optimizing the use of facilities (including preventive maintenance) [Project Nos. 64 & 65]

[AY 2016 to AY 2018]

The University has a Facility Management Committee established under the authority of the Executive Director (of Financial and General Affairs) in charge of facility management, the members of which comprise faculty selected from all departments. The Committee develops measures to maintain, manage, and optimize the use of facilities from a University-wide perspective, and to improve the space allocation balance between teachers and also secure more space to provide for new needs, it has developed a research-space request system for instructors.

The University kept track of users' purposes and usage patterns of its facilities related to the following organizations to identify any underlying issues and resolve them: 1) libraries, 2) School of Integrated Arts and Sciences, 3) Graduate School of Integrated Arts and Sciences, 4) School of Science, 5) Graduate School of Science, 6) Graduate School of Advanced Sciences of Matter, 7) School of Applied Biological Science, 8) Graduate School of Biosphere Science, and 9) Graduate School for International Development and Cooperation. In addition, after learning of a redevelopment plan in the Kasumi area, the University took the opportunity to convert its old clinic building into a communal building.

Furthermore, one of the goals of the medium-term plan was to secure about 1.5 times more space for communal use than in AY 2015; the University achieved that goal by the end of AY 2017—earlier than expected. In addition, in AY 2018, it introduced a space charge system—although doing so was not originally in its medium-term plan—and thereby developed a system that will enable securing enough funding for renovations needed to maintain facilities.

To properly maintain facility functionality standards relative to individual facility sizes within its financial resources, in AY 2016, the University formulated a Hiroshima University Infrastructure Life Extension Plan (action plan) aimed at maintaining long-term sustainability.

[AY 2019]

① Implementing the instructor research-space request system

To correct the imbalance of space allocated to each teacher for their own education and research purposes and also secure more communal space to provide for new needs, the University developed a number of charts of estimated space needs expected to arise from the reorganization of its graduate schools, based on requests from teachers living in the Higashi-Hiroshima Danchi apartments in AY 2019, and submitted the charts to schools/offices. The University will continue to implement the instructor research-space request system to maintain an ideal space allocation balance.

②Keeping track of users' purposes and usage patterns of facilities

Based on the data of users' purposes and usage patterns of facilities gathered last academic year, the University secured 517 m^2 of communal space and allocated 393 m^2 of it to providing for new needs of education and research organizations.

In addition, it kept track of users' purposes and usage patterns of facilities used by the School of Education, the Graduate School of Education, and Higashi-Senda Campus, identified a number of issues that underlay them, and asked the Chairperson of the Facility Management Committee to inform the Dean of the Graduate School of Education of the need to resolve them.

③ Improving the University's space-charge system

The University implemented its space charge system, as it did last academic year, and secured 44.465 million yen as funds for renovations needed to maintain facilities.

In addition, the University reexamined whether it was levying an appropriate charge per unit of land area. Subsequently, it appealed to the Executive Board for an increase and received approval.

④ Expanding communal space

The size of communal space, which was 7,689 m^2 and 12,267 m^2 at the end of AY 2015 and AY 2018, respectively, totaled 12,931 m^2 at the end of AY 2019, growing to a size 1.68 times larger than in AY 2015—a rate far greater than the medium-term target of 1.5 times.

⑤ Hiroshima University Infrastructure Life Extension Plan

The University recognizes that its facilities serve as an important foundation for operations, including the cultivation of creative human resources, original cutting-edge academic research, and the provision of highly advanced medical treatment. Accordingly, to properly maintain them in accordance with the Hiroshima University Infrastructure Life Extension Plan (action plan) and thereby enhance its excellent campus environment, the University formulated a Hiroshima University Infrastructure Life Extension Plan (individual facilities) to refer to when developing annual facility repair, renovation, and reconstruction plans that will enable cost reductions and balancing budgets.

ii) Campus Master Plan-based facility maintenance [Project No. 64]

[AY 2016 to AY 2018]

To maintain its campuses in ways that will maximize their appeal, the University set up a Working Group for Implementing the Campus Master Plan 2016, led by the Executive Director (of Financial and General Affairs) in charge of facility management, under the Facility Management Committee. The working group, comprising faculty representatives of the Department of Architecture and staff in charge of facilities, developed the Hiroshima University Campus Master Plan 2016 and an action plan for implementing it.

Based on the action plan for executing the Hiroshima University Campus Master Plan 2016, to maintain areas used as venues for student-faculty interaction, renovate old facilities, make facilities more energy-efficient, and ensure safe and worry-free education and research environments, construction work was undertaken on the following campuses to renovate or maintain the items provided below: 1) (Kasumi) disaster prevention infrastructure/equipment, 2) (Higashi-Hiroshima) electrical substation equipment, 3) (Kasumi) Dental Building C, 4) (Higashi-Hiroshima) Graduate School of Engineering's D4 Building, and 5) (Higashi-Hiroshima) School of Engineering's Lecture Building B1 & B4.

[AY 2019]

To maintain areas based on the action plan for executing the Hiroshima University Campus Master Plan 2016, thereby ensuring safe and worry-free education and research environments, the University renovated its libraries (on the Kasumi and Higashi-Hiroshima campuses), as well as Comprehensive Research Building A on Kasumi Campus, and thereby secured an area of 1,775 m^2 for active-learning lessons. In addition, construction work was conducted in the following areas to renovate the items

provided below: 1) (Higashi-Hiroshima) farm facilities, the exterior walls of the School of Education's buildings, including Research Building C, the waterproof roof of the Environmental Research and Management Center building, the paving of on-campus roads, and bicycle parking spaces; 2) (Kasumi) the elevators of the Center for Anatomical Science and Education; and 3) (Mukaishima) the exterior walls of research buildings and other facilities.
The implementation rate of the action plan for executing the Hiroshima University Campus Master Plan 2016 was 92.8% (77/83 items).

iii) Maintaining facilities with help from various funding sources [Project No. 64]
[AY 2016 to AY 2018]

With subsidies from Hiroshima Prefecture for maintaining medical facilities and donations from the Hiroshima Prefectural Medical Association, as well as other sources, the University cleared the first floor of the Clinical Research Building 2 in preparation for building the Cause of Death Investigation Education and Research Center (438 m^2).

Back when the third medium-term plan was being formulated, the prospects for attracting enough sponsors/funding were grim. However, the University succeeded in convincing enough stakeholders of the need for the Cause of Death Investigation and Research Center and secured enough funding to clear an area of 438 m^2.

[AY 2019]

With donations and other types of help from companies, the University built the Fukuyama Transport Komaru Nigiwai Pavilion multipurpose hall (159 m^2) as a venue for Japanese and international students to interact and also start businesses.
In addition, with a subsidy provided by the Japan Football Association, the University created the Higashi-Hiroshima Dream Field soccer ground (artificial turf field of 7,883 m^2) to stimulate educational and student activities and also share with the community.

With these new facilities, the area developed with help from various funding sources, which was 438 m^2 at the end of AY 2018, totaled 8,480 m^2 by the end of AY 2019.
Furthermore, Higashi-Hiroshima City agreed to grant 500 million yen to jointly fund the currently ongoing construction of international exchange facilities (about 4,000 m^2) with the University, which invested 1 billion yen, so that they can invite more international scholars and students from top level universities overseas to the City. (To be completed: September 2021)
In addition, when Kasumi Campus began using the ESCO service, it also began to receive funding (150 million yen) under the Ministry of Environment's Advanced Technologies Promotion Subsidy Scheme with Emission Reduction Targets (ASSET) program, which enabled the reduction of utility costs earlier than expected.

iv) Implementing environmental preservation and active energy-saving measures [Project No. 64]
[AY 2016 to AY 2018]

Between AY 2017 and AY 2018, the University implemented a renovation plan within a budget secured under the President's leadership to implement environmental preservation and energy-saving measures based on the University's Basic Environmental Policy, Action Plan, and Environmental Preservation Goals established by the Environmental Management System's Environmental Management Committee led by the President. Consequently, the University reduced its electricity consumption by 372,190 kWh by taking the following energy-saving measures: 1) switched outdoor lights to LED bulbs, 2) replaced old air-conditioners with more energy-efficient ones, 3) switched indoor lights to LED bulbs, 4) switched to energy-efficient electrical transformers, and 5) changed window glass to double-glazing. In addition, to optimize maintenance work on Kasumi Campus, the University began using a management-integrated ESCO service and installed energy-efficient equipment with the aim of reducing its emission of carbon dioxide by 3,361 tons in AY 2019.

[AY 2019]

The University took the following energy efficiency measures estimated to reduce annual electricity consumption by about 195,061 kWh: 1) replaced 38 200 W outdoor light bulbs with LED bulbs; 2) replaced 53 air-conditioners with more energy-efficient ones; 3) replaced 656 fluorescent lamps, including those in the East Library, with LED bulbs; 4) replaced transformers used in the East Library with more energy-efficient ones; and 5) changed window glass to double-glazing as part of building renovations.
The management-integrated ESCO service provided to all areas of the Kasumi Campus enabled in AY 2019 the reduction of electricity consumption by 2.67 million kWh, gas by 1.06 million m^3, and water and sewage by 59,500 m^3, cutting CO2 emissions by 3,735 tons.

Safety management efforts

i) Improving safety and health management practices [Project No. 66]
[AY 2016 to AY 2018]

Promoting no smoking on campus

In AY 2018, the University set the prevention of passive smoking as one of its safety and health goals, and on August 1, 2018, it formed a working group under the Safety and Health Management Committee to promote no smoking on campus. Subsequently, the Executive Board decided to ban smoking on campus on January 1, 2020, and on January 25, 2019, the University accordingly issued a Hiroshima University No-smoking Declaration and also publicly announced a road map describing the measures that it will be taking to become a no smoking university.

[AY 2019]

By implementing the roadmap, the University banned smoking on campus on January 1, 2020.
(The measures it took to become a no smoking university are as follows.)

- The University formulated a Hiroshima University Basic Policy on Implementing Measures to Ban Smoking on Campus and thereby clarified a number of points, including the following: 1) whom it is asking to refrain from smoking on campus and 2) where it bans smoking. In addition, the University specified that routine patrols will be conducted and that faculty and staff are also asked to refrain from smoking at work.
- Through a compulsory course titled "Introduction to University Education," freshmen undergraduate students were taught about the importance of not smoking. In addition, during orientation, international students and new teachers/staff were provided with a briefing on the University's no smoking policy.
- The Health Service Center prescribed a nicotine replacement therapeutic device (nicotine patches) free of charge to students who asked for help with quitting smoking. The Center also created a list of medical institutions that offer help with quitting smoking and referred such students as necessary.
- With help from a lecturer it invited from Kyushu University, which is known to be taking effective anti-smoking measures, the University held an anti-smoking seminar on promoting no-smoking on campus. The seminar was well received, as is reflected in the following comment provided by a participant: "The seminar truly helped me understand the adverse effects of smoking." Accordingly, the University made a video of the seminar for faculty, staff, and students.
- It also opened a Passive Smoking Consultation Office to provide students, faculty, and staff with consultation, advice, and other helpful information.

• To deal with issues that could arise after closing all designated smoking areas, including passive smoking due to smoking on off-campus streets, fire risks due to smoking secretly, and cigarette butt littering, a number of teams led by the working group were assigned to the following tasks: 1) routine patrols of the University's three main campuses to ask any student, faculty, or staff member smoking on the streets to put out his/her cigarette; and 2) cleanup of cigarette butts.

ii) Improving the University's risk management system [Project No. 66]
[AY 2016 to AY 2018]
Safety confirmation drills
With help from students, faculty, and staff, in AY 2017 the University adopted the practice of conducting twice-annual safety confirmation drills, and in AY 2018, the second drill demonstrated an increase in the speed of participant response within 24 hours, indicating improved participant-awareness of the importance of responding to safety confirmation requests (response within 24 hours increased from 32.9% [1st drill in March 2018] to 43.5% [2nd drill in December 2018]).
In addition, after the heavy rain that fell early in the morning on July 6, 2018, by the end of the next day, the University was able to quickly confirm the safety of students, faculty, and staff and develop a response strategy, based on its assessment of human and physical damage.
To help faculty, staff, and students increase their awareness of risk management, the University examined whether there could have been a better safety confirmation method in responding to the downpour disaster, and based on that examination, it revised its safety confirmation manual and informed faculty, staff, and students of it.

[AY 2019]
To help new students, teachers, and staff increase their awareness of risk management, the University conducted safety confirmation drills in May and November (May: 46.9%; November: 39.2%).
In addition, the emergency contact system that was used in the safety confirmation drills was again implemented in April 2020, in response to the outbreak of the novel coronavirus pandemic, enabling the University's emergency response headquarters to quickly contact students, faculty, and staff to confirm their state of health, as well as whereabouts, and subsequently share that information among themselves to develop an effective response strategy.
In addition, to help new teachers improve their risk management skills, as part of its new teacher training program, the University held a risk management seminar in October on safety measures taken by national universities against incidents and accidents. The seminar was generally well-received, according to a satisfaction survey conducted at the end, which showed that at least 83% of respondents were either "Extremely satisfied" or "Rather satisfied." The University will put effort into providing new teachers with even better risk management seminars in AY 2020 and thereafter.

Information security improvement efforts
[AY 2016 to AY 2018]
i) Information security rules [Project No. 69]
• Efforts to strengthen the University's information security system
① The University revised its information security policy and implementation manual. In doing so, to clarify the principles that faculty, staff, and students are individually expected to uphold, the University produced two manuals—one containing those that apply to the entire University, another explaining a number of new ones that apply to schools/offices individually. [AY 2016]
② The University reassigned the role of Chief Information Security Office, formerly served by Executive Officers, to the Vice President (Information) and revised the Hiroshima University Information Security Rules accordingly. [AY 2017]
③ The University revised its University-wide Information Security Crisis Management Manual, and in doing so, it incorporated a flowchart showing the procedures to follow, from outbreak to resolution, in the event of an information security incident. [AY 2018]
④ In March 2019, the University formulated the Hiroshima University Basic Information Security Measures Plan (2019–2021 edition), and in describing the plan's overall policy, it emphasized the importance of quickly responding to information security incidents and securing necessary funds. [AY 2018]

• Self-inspection/evaluation of the University's information security system and implementing internal/external audits
① In 2014, the Information Media Center requested the Japan Audit and Certification Organization for Environment and Quality (JACO; hereinafter, "external certification organization") to inspect whether it properly manages user identification information in operating its information services. The Center passed the inspection and was awarded Information Security Management System (ISMS) certification (ISO/IEC 27001). In AY 2016, the University expanded the scope of ISMS certification to include its University-wide standardized ID management system and received ISMS Cloud Security certification (ISO/IEC 27017: Cloud Service Customer) before other universities in Japan. [AY 2016]

ii) Strengthening the University's information security [Project No. 69]
• Effective management of critical information
① The University linked IP addresses, MAC addresses, and Administrator IDs of devices with public IP addresses accessible from outside to enable easier management and also introduced a system that enables administrators of such devices to set network access restrictions themselves. [AY 2016]
② To prevent unauthorized access, the University generally changed all server settings to block access from outside. [AY 2017]
③ To share its information security practices with other institutions, including universities, at the Ministry of Education, Culture, Sports, Science and Technology's Meeting for Chief Executive Officers of Information Security at National Institutions, the Vice President (Information) delivered a lecture titled "How to Effectively Manage IP Addresses and Prevent the Use of Unauthorized Servers." [AY 2017]
④ The University included cloud services in the scope of its vulnerability diagnosis (security inspection) of network-connected devices. [AY 2018]

iii) Information security incident response [Project No. 69]
• Education and training programs (incident prevention efforts)
① The University continued to provide faculty, staff, and students with the entire series of information security compliance training programs administered since AY 2011. In addition, faculty and staff were provided with information security seminars designed to help them increase their knowledge and awareness of information security. [AY 2016 to AY 2018]
② The University regularly provided executive officers, faculty, and staff (excluding part-timers and those on leave) and students (excluding part-timers, those on leave, and those studying abroad) with information security incident response training. [AY 2017 & AY 2018]

• Establishing quick response procedures (efforts to minimize damage)
① The University has participated in the National Institute of Informatics' NII Security Operation Collaboration Services (NII-SOCS) since AY 2017. The NII-SOCS notifies participants of unauthorized access attempts, and whenever the University was notified, it contacted its

telecommunication providers and set network access restrictions within an hour [AY 2017 & AY 2018].
② Since AY 2016, the University has provided its Computer Security Incident Response Team (CSIRT) with education and training on how to respond when notified of unauthorized access attempts and what procedures to follow in the event of an information security incident. [AY 2016 to AY 2018]
③ The University activated Office 365's Safe Links feature (which checks whether URLs provided in emails are safe, and if not, notifies the user) on all faculty, staff, and student accounts. [AY 2018]

[AY 2019]
The following is based on the parts underlined in the Ministry of Education, Culture, Sports, Science and Technology's notice about Tightening University and Other Institutional Cyber Security Measures (published on May 24, 2019, in Vol. 59 of the former *Ministry of Education, Culture, Sports, Science and Technology, Higher Education Bureau Chief's Notice*).

i) Establishing an effective incident response system [Project No. 69]
① The University provided its Computer Security Incident Response Team (CSIRT) with education and training on how to respond when notified of unauthorized access attempts and what procedures to follow in the event of an information security incident (attendance: 91.7% [AY 2019]). The University will continue to provide the CSIRT with such education and training so that it can help the University minimize any damage in the event of an incident.

ii) Education and training on cyber security [Project No. 69]
① The University regularly provided faculty, staff, and students with information security compliance training; consequently, no serious information security incidents occurred.
Freshman training (lecture): 3,579 new-student participants (90%; AY 2019)
Freshman training (online lecture): 4,849 new-student participants (97.6%; AY 2019)
Follow-up training: 16,154 participants (88.1%; AY 2019)
In addition, faculty and staff were provided with 10 information security seminars designed to help increase participants' knowledge and awareness of information security (participants: 740 [AY 2018] → 909 [AY 2019]). The seminars were followed by a satisfaction survey, according to which 80% of respondents found them participant-friendly.
② The University regularly provided executive officers, faculty, and staff (excluding part-timers and those on leave) and students (excluding part-timers, those on leave, and those studying abroad) with information security incident response training. Consequently, no serious information security incidents occurred (participants: 20,155 [AY 2019]).
Unlike most training programs of this sort, which send participants suspicious email and count the number of recipients who open them (with the aim being the achievement of 0%), the University aims to help participants become able to quickly respond to information security incidents themselves. Accordingly, the focus of its training programs has been, and will continue to be, the achievement of a 100% implementation rate of initial response procedures.
1st half of program (lecture): 2,852 faculty/staff (52.3%; AY 2018) → 4,263 (76.7%; AY 2019); 2,656 students (18%; AY 2018) → 5,864 (40.2%; AY 2019)
2nd half of program (drill): 4,109 faculty/staff (75.3%; AY 2018) → 4,234 (76.2%; AY 2019); 5,858 students (39.8%; AY 2018) → 5,825 (39.9%; AY 2019)

iii) Self-inspecting and auditing information security measures [Project No. 69]
① The University self-inspected/evaluated its information security practices (participants: 16,194 [95.2%; AY 2019]).
② It also conducted an internal audit of its hospital's information system (in January 2020). The internal audit confirmed that the hospital's information system was being operated properly in accordance with the hospital's rules.
③ The University also conducted an internal audit of its financial accounting system (in March 2020). The internal audit confirmed that the University's financial accounting system was being operated properly in accordance with the University's rules.
④ In addition, internal/external audits of the Information Security Management System (ISMS) and the ISMS cloud security certification were conducted. The internal audit confirmed that the University's ISMS measures were implemented without delay. The external audit also confirmed that the University's committees, including its ISMS office, were properly and effectively implementing ISMS measures in accordance with the ISMS manual and other documents that were revised in AY 2018. Accordingly, the University passed the surveillance audit (in March 2020).

iv) Collaboration/cooperation with other organizations
① In AY 2019, the University received 311 notifications from the NII-SOCS and responded to all of them; consequently, no serious information security incidents occurred.

v) Technical measures
① The University updated its office information systems and then disconnected its critical office information systems from the Internet. By using device virtualization technology, the University disconnected from the Internet all devices in offices handling critical information. In addition, by using VPN technology, it enabled access to office information systems without location restrictions. Consequently, 1,420 devices gained remote access to office information systems, enabling staff to telework via the Internet (in February 2020).
② The University began cloud migration of its educational affairs servers—the last of its core business servers yet to have been switched to cloud computing (in January 2020).

vi) Evaluating and revising the Basic Information Security Measures Plan
① In accordance with the Ministry of Education, Culture, Sports, Science and Technology's Strengthening Cyber Security Measures at Universities and Other Institutions (notice), the University revised in September 2019 the Hiroshima University Basic Information Security Measures Plan (AY 2019–AY 2021 edition), originally formulated in March 2019. In doing so, the University added a number of information security measures relating to its disaster recovery and business continuity plans and stipulations to prevent intentional/accidental disclosure of information on cutting-edge technology.

2. University-wide efforts

(Legal compliance and ethically responsible research)

○ Establishing and implementing the University's legal compliance system and rules

i) Preventing the misuse of research funds
To assess faculty members' awareness of different types of misuse of research funds, based on the Hiroshima University Plan for Preventing the Misuse of Research Funds (fifth action plan), formulated on October 3, 2016, the University administered an awareness survey on the misuse of research funds in AY 2016 and AY 2017. Subsequently, the University announced the results to

faculty, staff, and students through school/office compliance managers with emphasis on the types of research fund use that seemed to be less recognizable as instances of misuse.
In addition, to help those who will be participating in the University's new teacher and staff training program (in April and October) and/or the Chugoku and Shikoku area's national university financial accounting training program (entry level), the University offered a seminar on accounting standards, which included a lecture on the proper use of research funds.
The University offered another seminar on accounting standards in AY 2019, which also included a lecture on the proper use of research funds to help those who will be participating in its new teacher and staff training program (in April and October) and/or the Chugoku and Shikoku area's national university financial accounting training program (entry level).
Furthermore, the University revised the teaching material used in its compliance training programs, and also created a comprehension test, the administration of both of which was switched to online in AY 2020.
In addition, to ensure that travel expenses are not doubly reimbursed by two institutions, the University revised its travel report and second-job permission request forms in ways that will clearly indicate whether travel expenses have already been reimbursed by another institution. The University also redesigned its travel report and reward payment request forms that students are asked to submit so that it can pay rewards. In addition, it revised its office procedures for accepting travel reports and reward payment requests as follows: 1) the office in charge will only accept travel reports and reward payment requests submitted in person; 2) in addition, the student submitting a report/request will need to prove that he/she is the person whose name is provided on the report/request and that the information contained is true; and 3) after accepting reports/requests, the staff in charge will keep a record of the fact that he/she confirmed the student's identity and the truthfulness of the report/request.

ii) Personal information protection efforts [Project No. 68]
Each year, the University provided training on personal information protection to the following stakeholders: 1) new faculty and staff (through new teacher and staff training programs [in April and October]) and 2) existing faculty, staff, and healthcare workers. All training sessions included satisfaction surveys, based on which both the content and methods of future training programs were improved.

Students were provided with video-based lectures on personal information protection each year before attending the Quality Teaching Assistant Qualification test preparation seminar.
In addition, to examine whether schools/offices properly handled personal information and corporate documents, the Audit Office collaborated with stakeholders in auditing 16 to 19 schools/offices—a practice followed every year. Schools/offices that were found not to be properly handling personal information and corporate documents (e.g., continuing to store documents even after the end of their preservation period or failing to register corporate document files) were instructed to immediately improve their practices. After the audits, schools/offices were provided with feedback through audit reports and subsequently asked what measures they had taken to improve their practices.

○ Providing researchers and students with research ethics education

i) Efforts to prevent scientific misconduct [Project No. 67]
The Scientific Misconduct Prevention Office held a number of faculty development seminars on research ethics, including legal compliance (attendance: 99% [AY 2019]). The Office offers four to six of these seminars every academic year, between August to January, so that faculty members can meet the requirement of attending one every five years. In addition, to help students increase their awareness of research ethics, the University provided students with a standardized education program on research ethics, as it has been doing since AY 2017, immediately after enrollment and before writing their undergraduate/graduate degree thesis (attendance: 87.3% [AY 2019]. Furthermore, to teach new students the basics of research ethics, the University incorporated a lesson on research ethics into one of its compulsory courses developed in AY 2018 for freshmen students, titled "Introduction to University Education."

○ Establishing and implementing the University's crisis management system and rules for responding to disasters, incidents, and accidents

Measures taken in response to the 2018 Japan floods

i) Establishing a President-led system for helping victims and reconstruction [Project No. N/A]
After the downpour early in the morning on July 6, 2018, by the end of the next day, the University had a Disaster Response Headquarters set up—with the President serving as Director—and had confirmed the safety of students, faculty, and staff, developed a roadmap to resume classes, and begun helping victims, including international students. The Disaster Response Headquarters held seven meetings between July and October to update the measures being taken to respond to the changing situation, and announced them on its official website. In addition, by July 8, the University had sent the following items to the recipients provided below: 1) a President's message to students, faculty, and staff; 2) a President's letter to its interuniversity partner institutions; and 3) a President's message titled "Dear Parents and Guardians" to the parents and guardians of about 14,000 current students (excluding international students).

ii) Measures to resume classes [Project No. N/A]
Based on damage assessments and the prospects for resumption of public transportation, the University decided to change its academic calendar and also provide students, faculty, and staff without a means of transportation to school/work with rental bus services from major railway stations. In addition, to help students without a means of transportation to school, the University offered a number of dormitories and received questions from 27 (9 male, 18 female) students. Consequently, six moved into the Ikenoue Student Dormitory (a male-only accommodation comprising 54 rooms) and another six moved into furnished co-op chain accommodations.

iii) Helping international students [Project No. N/A]
On July 9, the University provided about 150 international students with 120 emergency meals and 770 halal-friendly maple-leaf-shaped cakes free of charge, and also uploaded messages about help available to its official website in Japanese, English, and Chinese. Subsequently, the University received many comments of gratitude, including the following: 1) "I'm very grateful for the University's help. Thank you very much for helping international students as well"; and 2) "Thank you for explaining the University's disaster response measures in Chinese. I was extremely relieved."

iv) Student volunteers [Project No. N/A]
More than 1,300 students participated in volunteer activities, coordinated by student volunteer organizations, called "OPERATION" (Higashi Hiroshima) and "COCO" (Kasumi). The university rented 40 buses and other vehicles to support student volunteer activities. It also asked student volunteers to answer a survey on how useful its support was in helping them conduct volunteer activities and then organized the results into an activity report.
In the morning of July 7—the day following the downpour disaster—15 Hiroshima University students learned through a social media post of a car stuck on a national highway. They went to the driver's rescue with food and drink bought on the way, and also helped control traffic. The students' kind deed was featured in the Chugoku Shimbun newspaper's July 10 edition.

v) Medical support [Project No. N/A]

To respond to the July-6 downpour disaster, Hiroshima University Hospital set up a Disaster Response Headquarters and accepted 18 patients by July 8.

In addition, 260 of the Hospital's healthcare workers, comprising the following teams, participated in emergency response activities over 97 days: 1) Disaster Medical Assistance Team, 2) Hiroshima Prefecture Medical Relief Team Coordination Headquarters Coordinators, 3) Japan Medical Association Team, 4) Infection Control Team, 5) Disaster Relief Nurse, 6) Disaster Psychiatric Assistance Team, 7) Japan Rehabilitation Assistance Team, and 8) Oral Care Team.

vi) Disaster assessment [Project No. N/A]

① Establishment of the Hiroshima University 2018 Japan Floods Disaster Assessment Team (July 11)

To examine and analyze the damage caused by the record downpour, provide ideas for post-disaster city planning, help municipalities deal with the aftermath, and help communities rebuild, the University formed a disaster assessment team, led by the President, comprising groups of disaster prevention experts assigned to examine/analyze the damage from the following perspectives: 1) landslide and debris flow damage; 2) overflow, flood, and other hydro-meteorological damage; 3) damage to city infrastructure; and 4) public health and medical care.

In addition, the University collaborated and shared information with local municipalities (Hiroshima Prefecture, Hiroshima City, and Higashi-Hiroshima City).

In addition, the University provided local municipalities with the following help in dealing with the aftermath of the downpour disaster and helping communities reconstruct: 1) submitted to the Mayor of Higashi-Hiroshima City a Proposal Concerning Higashi-Hiroshima City's Transportation Policy (on Resolving the Congestion and Confusion at Sanyo Bullet Train Higashi-Hiroshima Station) after the 2018 Japan floods; and 2) held two briefing sessions on the progress made by the University's disaster assessment team in examining and analyzing the damage caused by the disaster, including the planning of its future course of action.

② Establishment of Hiroshima University Resilience Research Center (September 20)

To conduct research into the damage caused by the downpour disaster from the perspectives of unconventional disaster prevention and mitigation, the University set up a new interdisciplinary research team—the Hiroshima University Resilience Research Center (HRRC). The HRRC is a world-leading disaster science research base that collaborates with distinguished network research institutions in Japan and throughout the world to primarily study landslide-flood synergistic disasters from cutting-edge interdisciplinary perspectives.

On November 14, the HRRC held a collaborative municipalities' meeting—a thought-sharing meeting that welcomed 40 risk management representatives from 23 cities and towns in Hiroshima Prefecture, Kasaoka City of Okayama Prefecture, and Iwakuni City and Waki Town of Yamaguchi Prefecture.

In addition, after witnessing the 2018 Japan floods, on January 10, 2019, Hiroshima University signed a memorandum of understanding with the Ministry of Land, Infrastructure, Transport and Tourism's Chugoku Regional Development Bureau on cooperating in preventing and mitigating disasters so that it can collaborate with the Bureau more closely in conducting research and using the findings to help increase community disaster preparedness.

vii) Disaster preparedness events and lectures [Project No. N/A]

- September 10, 2018—Science Council of Japan: Emergency Briefing on the 2018 Japan Floods
- September 15, 2018—HIRAKU 3MT Competition 2018: Special Session "Lessons learned from the West-Japan Rainfall Disaster"
- October 10, 2018—14th Geographic Information System Community Forum in Kansai
- October 27, 2018—The City Planning Institute of Japan: Chugoku-Shikoku Branch Scientific Meeting for AY 2018
- November 1, 2018—Construction Technology Forum 2018 in Hiroshima
- November 9, 2018—Hiroshima Association of Real Estate Appraisers: Meeting
- November 12, 2018—Chugoku Disaster Prevention Society: Meeting
- February 16, 2019—The Open University of Japan: Public Lecture
- February 24, 2019—Hiroshima Prefecture Medical Examination Society: 36th Public Lecture
- March 13, 2019—Hiroshima University Resilience Research Center: Public Lecture "The 2018 Japan Floods—From the Forefront of Research into Landslide-flood Synergistic Disasters"
- May 29, 2019—Public Lecture "The 2018 Japan Floods—From the Forefront of Research into Landslide-flood Synergistic Disasters"
- June 3, 2019—Hiroshima University Resilience Research Center: 1st Joint Municipalities' Meeting for AY 2019
- July 5, 2019—Final Public Briefing by the 2018 Japan Floods Disaster Assessment Team Released "2018 Japan Floods Disaster Assessment Report"
- September 30, 2019—Public discussion to mark the one-year anniversary of the Hiroshima University Resilience Research Center: "Residents, Scholars, and Officials Recall the Landslide-flood Synergistic Disaster"
- November 18, 2019—Hiroshima University Resilience Research Center: Training for disaster risk management officials
- February 12, 2020—Thought-sharing session with the Ministry of Land, Infrastructure, Transport and Tourism's Chugoku Regional Development Bureau: "Measures against Common Large-scale Natural Disasters"

II Improving the quality of the University's education and research
(4) Other goals
③ Hiroshima University Hospital's goals

Medium-term goal	[13] Strengthen the Hospital's safety management system to provide safe and high-quality medical care. [14] Help improve the quality of national policy-based medical care in the local community, and fulfill the Hospital's role as a core medical institution with the aim of becoming one of Asia's medical hubs. [15] Provide students and graduates with better medical education, training, and lifelong learning programs and thereby cultivate excellent medical personnel. [16] Improve the Hospital's education and clinical research systems to continue to provide new types of advanced medical care, conduct original research, and develop more core medical centers. [17] Strengthen the Hospital's management base and thereby optimize its management to ensure stable operation of the Hospital.

Medium-term plan	Progress	Descriptions and explanations (of plan implementation)	
		Plan implementation by AY 2019	Plans to be implemented in AY 2020 and AY 2021
[35] Take the following actions to improve and strengthen the Hospital's capacity for providing highly advanced medical care with the use of medical technology that requires special skills, thereby fulfilling the Hospital's role as a special functioning hospital that offers advanced medical care: 1) regularly examine the medical safety management system, including the procedures for incorporating new medical technology that helps provide highly specialized treatments; and 2) reorganize medical organizations in ways that will put patients at the center of clinical care.	III	(Overview of AY 2016 to AY 2018 plan implementation) To strengthen the Hospital's medical safety management system, in AY 2016, the Hospital appointed the Deputy Director as Medical Safety Management Supervisor in charge of leading the following organizations and staff serving in the roles provided below: 1) Medical Safety Management Department, 2) Medical Accident Prevention Committee, 3) Pharmaceutical Safety Management Supervisor, and 4) Medical Equipment Safety Management Supervisor. In AY 2016, the Hospital installed another da Vinci surgical system, which helps provide highly specialized treatments, increasing the number of da Vinci surgical systems it owns to two, the first hospital in the Chugoku-Shikoku area to do so. This improved and strengthened the Hospital's medical facilities, reduced patient wait time for surgery and also enabled the hospital to perform robot-supported surgeries in multiple fields at the same time. In addition, to provide lymphedema patients with multidisciplinary therapy, including even more accurate diagnoses, and relieve their symptoms, in April 2017, the Hospital established an International Center for Lymphedema, before other hospitals in Japan, and assigned two professors—a special-appointment and an assistant professor—thereby strengthening its functions. (AY 2019 plan implementation) In September 2019, the Hospital was appointed as a designated cancer genomic medicine hospital; accordingly, it established a Department of Genetic Medicine in January 2020. The Hospital also established an expert panel and developed a system for collaborating with other hospitals that provide genomic medicine in Hiroshima Prefecture to provide cutting-edge cancer treatment. In addition, the Hospital is the only designated childhood cancer hospital in the Chugoku-Shikoku area, and it promotes genomic medicine as a new approach to treating childhood cancer.	To strengthen its medical functions and thereby maintain safe and high quality medical care, the Hospital will regularly take action to strengthen its medical safety measures, including revising its medical safety management manuals to ensure compliance with relevant laws, and also set up in AY 2020 another Central Clinical Facility—a Division of International Medical Support. In addition, in April 2020, the Hospital will welcome new professors to its Department of Health Informatics and Hospital Systems Management to improve its medical procedures involving medical information and also reorganize its Department of Genetic Medicine to open a Cancer Genomic Medicine Center (provisional) and thereby lay the foundations for a graduate school for cultivating certified genetic counselors. Furthermore, the Hospital will begin building a biobank to offer clinical sequencing.

[36] Take the following actions to fulfill the Hospital's role as a designated childhood cancer hospital—the only institution of its kind in the Chugoku-Shikoku area and its affiliated radiological emergency medical institution network: 1) coordinate collaboration between key hospitals in Hiroshima Prefecture and 2) foster collaboration with international exchange partner institutions with the aim of becoming one of Asia's leading medical centers.	III	(Overview of AY 2016 to AY 2018 plan implementation) To establish a medical system for responding to radiological emergencies and thereby fulfill its role as an Advanced Radiation Emergency Medical Support Center and Comprehensive Nuclear Emergency Medical Support Center, the Hospital promoted collaborative projects with prefectures that have nuclear power plants, including developing nuclear disaster prevention networks, and also promoted radiological emergency medicine. In addition, to help improve the quality of childhood cancer care in the Chugoku-Shikoku area and thereby fulfill its role as the only designated childhood cancer hospital in the area, the Hospital developed a childhood cancer care network, comprising 15 childhood cancer (partner) hospitals in the area, and also developed a system for jointly providing medical care and cultivating healthcare personnel. Since AY 2016, the Hospital has been collaborating with Sanfrecce Hiroshima—a soccer team competing in the J1 League—in increasing public awareness of epilepsy. In addition, the Hospital exchanged delegations, surgeons, and surgical nurses with international exchange partner institutions. It also held the annual alternately-hosted joint symposium with Taichung Veterans General Hospital—one of Taiwan's leading hospitals with more than 1,500 beds. (AY 2019 plan implementation) The Hospital's request to have its status as a designated childhood cancer hospital renewed was approved in April 2019. Accordingly, to continue to fulfill its role as a designated childhood cancer hospital in the Chugoku-Shikoku area, the Hospital continued to put effort into developing childhood cancer care networks with partner hospitals. In addition, in July 2019, 15 representatives from the Taichung Veterans General Hospital, including its Superintendent Hui-Heng Hsu, doctors, and nurses and 50 or so Hiroshima University Hospital representatives, including the Director, jointly held the 2019 Health Science Symposium, on the theme of radiology. Subsequently, the representatives of the Taichung Veterans General Hospital were given a demonstration of how a linear accelerator—the same model that was recently introduced into the National Cancer Center of Mongolia—is used in radiation therapy.	To strengthen community medical network functions, including collaboration between local key hospitals, the Hospital will coordinate efforts to hold regular conferences and workshops on jointly providing medical care and cultivating medical personnel. In addition, to promote advanced medical care in Hiroshima Prefecture, it will put effort into improving the quality of its own medical practices in providing advanced medical care. Furthermore, to cultivate physicians/surgeons with advanced medical skills and thereby improve the quality of its medical practices to international standards, the Hospital will collaborate more closely with international medical institutions as follows: 1) continue to exchange delegations, surgeons, and nurses with international partner institutions; 2) hold webinars with Hasanuddin University—an Indonesian college—on COVID-19 measures; and 3) implement joint projects with partner universities in Nepal to promote the latest epilepsy treatments. In addition, the Hospital will offer donation courses, primarily on clinical care, with help from medical institutions in Hiroshima Prefecture to improve the quality of medical care and achieve the same high standard throughout the region.
[37] Provide students and graduates with high quality systematic clinical training, and to do so, improve and strengthen the functions of the Hiroshima Postgraduate Clinical Training Network. In addition, establish a base that can consistently offer inter-professional undergraduate and graduate school education and research programs involving medicine, dentistry, pharmacy, and health science to cultivate medical personnel in the Chugoku-Shikoku area. Furthermore, cultivate the following types of medical personnel: 1) professionals able to use advance medical technology to provide comprehensive medical care; and 2) healthcare workers able to respond to next generation medical needs, including those expected to arise in relation to the super-aging population.	III	(Overview of AY 2016 to AY 2018 plan implementation) Each year, to improve and strengthen the Postgraduate Clinical Training Network in ways that will help cultivate medical instructors, the Hospital hosted training sessions designed to help graduates affiliated with the Hiroshima Postgraduate Clinical Training Network develop into medical instructors. To develop an education program that can cultivate (a team of) internationally competent medical personnel with radiation therapy skills at the world's highest standards and then assign them to helping other hospitals throughout Hiroshima Prefecture and nearby Asian countries improve the quality of their radiation therapy care to equally high levels, the Hospital sent medical teams of doctors and nurses to advanced medical institutions, including Shizuoka Cancer Center, throughout Japan and the world to observe practices followed by others and to gather information. The Hospital also held a team building workshop to help radiation therapy staff from different professions understand each other's job better. In addition, with help from engineers from Yokogawa Medical Solutions Corporation, it held an on-site radiation therapy workshop, where participants presented what they learned about working as a team to provide radiation therapy. Furthermore, to cultivate future-oriented medical professionals able to help	To incorporate the perspective of lifelong learning into the Hospital's training programs and also examine whether they are producing the desired results, the Hospital's Postgraduate Clinical Training and Educational Center will collaborate with clinical training hospitals to improve and strengthen their network functions. In addition, the Hospital will help improve the quality of radiation therapy care to the same high level throughout the Chugoku-Shikoku area and nearby Asian countries, and to do so, it will promote its education program designed to cultivate internationally competent medical personnel with radiation therapy skills of the world's highest standards. Furthermore, the Hospital's Center for Education and Futuristic Medical Professionals will collaborate with domestic

		seamlessly incorporate next generation medical practices into community medical institutions, in January 2017, the Hospital established the Center for Education and Futuristic Medical Professionals. In addition, to share its advanced medical practices with regional medical institutions, the Hospital held a number of meetings with stakeholders and also offered public seminars designed for young doctors and healthcare workers. (AY 2019 plan implementation) The Hospital continued to put effort into organizing workshops and seminars aiming to cultivate internationally competent medical personnel with radiation therapy skills of the world's highest standards. In addition, in November, the Hiroshima Medical Society for Radiation Therapy Teams held a conference comprising the following activities aimed at helping healthcare workers from different medical professions become able to collaborate more closely with one another: 1) briefing sessions on the Hospital's domestic and international efforts to cultivate internationally competent medical personnel with radiation therapy skills of the world's highest standards, 2) lectures on inter-professional collaboration from the perspective of cancer care of the elderly, and 3) a discussion on current team medical practices and the issues underlying them. Furthermore, to provide young doctors and other healthcare workers with opportunities to learn about medical practices followed in other countries, in August, the Center for Education and Futuristic Medical Professionals held an event titled the World Health Summit in Hiroshima 2019 and also offered a series of six future-oriented global seminars. The Hospital also held public seminars for young doctors and other healthcare workers with help from lecturers from the following institutions in the months provided below: 1) Weill Cornell Medical College (the U.S.) in September, 2) University of Groningen (the Netherlands) in September, and 3) Mayo Clinic (the U.S.) in December.	and international organizations affiliated with Hiroshima University's medical institution network to develop a system for cultivating future-oriented international medical professionals with advanced home medical care expertise.
[38] Promote Hiroshima University Hospital's cutting-edge medicine and highly advanced medical care, and to do so, establish an international radiological emergency response base by using the University's experience in helping the reconstruction of Hiroshima after the atomic bomb. In addition, establish bases for clinical technology development, and to do so, conduct advanced interdisciplinary research by integrating medicine with not only dentistry, pharmacy, and health science but also other disciplines, and do so in ways that will maximize the Hospital's experience in the following fields: 1) regenerative medicine, including cartilage regeneration; 2) preclinical medicine, including liver disease research and brain science; and 3) clinical medicine.	III	(Overview of AY 2016 to AY 2018 plan implementation) To promote medical research at Hiroshima University Hospital, in April 2017, the University established a Medical Research Promotion Committee under the authority of the Vice President (Research Ethics) and took the following actions: 1) established an Academic Research Organization by combining the University's fields of medicine interconnectedly; 2) promoted translational research, i.e., the application of basic scientific findings to clinical practice; 3) secured more competitive funding from such sources as the Japan Agency for Medical Research and Development (AMED) and the Ministry of Education, Culture, Sports, Science and Technology's Grant-in-Aid for Scientific Research; and 4) developed measures to attract investors interested in investing in medical research. In April 2018, the University established the Hiroshima University Medical Translational Research Promotion Center, appointed the Vice President (Research Development) as Vice Head of the Center, and set up the Medical Translational Research Promotion Committee within the Center. Subsequently, in the same month, the Medical Translational Research Promotion Center and the University's Translational Research Center—one of the Joint Education and Research Facilities on Campus—began working together on establishing a system for helping the University's medical researchers. In addition, in October 2016, Hiroshima University, Hiroshima Prefecture, the Hiroshima Para Sports Association, and STAND (a nonprofit organization) concluded an agreement on collaboration to promote para-	To improve its highly advanced medical practices and also accelerate the development of its exploratory medical practices, the University's Medical Translational Research Promotion Center will reorganize the translational research system for transferring scientific research findings from the Translational Research Center (preclinical) to the Hospital Comprehensive Medical Research Promotion Center (Clinical). To do so, the Hospital will invite five doctors with experience working at designated core clinical hospitals. In addition, to promote regenerative medicine, the Hospital will reallocate its staff at the Futuristic Medical Care Center into two groups: one that will conduct research into regenerative medicine and another that will assist that group. Furthermore, the Hospital's Sports Medical Science Center will serve as a support base for para-sports athletes throughout the Tokyo Olympic and Paralympic Games

		sports and built a system for supporting Paralympic athletes. (AY 2019 plan implementation) To promote translational research, the University unified the Translational Research Center, the Hospital Comprehensive Medical Research Promotion Center, and the Medical Policy Office (Medical Research), thereby introducing a system for helping researchers throughout the entire process of transferring preclinical research findings to clinical practices in October. In addition, to comply with the revised rules under the Act on the Safety of Regenerative Medicine, which came into effect on April 1, the Hiroshima University Regenerative Medical Committee applied for a renewal of its status as a Certified Committee for Regenerative Medicine and received approval on July 3 under the condition that it develops an evaluation system if it wants to continue practicing regenerative medicine, and it subsequently did so.	2020 and also promote its education programs throughout Japan and Asia.
[39] Take the following actions to manage the Hospital strategically: 1) continue to calculate earnings and analyze income from the cost-accounting perspective that was adopted during the second medium term and 2) analyze income and expenses by using the management support system that was also adopted during the second medium term.	III	(Overview of AY 2016 to AY 2018 plan implementation) • By using the University Hospital Management Accounting System (HOMAS2), the Hospital performed a monthly cost-accounting analysis of its departments, compared the results with last year, and conducted factor analyses of departments with large profit fluctuations. Subsequently, income and expenses relating to each type of cost, on which the cost-accounting analysis of departments was based, were then analyzed and compared with last academic year. • In deciding whether or not to have maintenance included when entering a lease contract for large medical equipment, the Hospital analyzed running costs and selected the more cost-efficient option. • In addition, the Hospital held monthly meetings under the leadership of the Director to make the following decisions: 1) periodic replacement of medical equipment; and 2) replacement, based on a condition assessment conducted in AY 2017, of old large medical equipment that requires help from various funding sources. • Furthermore, the Hospital conducted a physical inventory of its pharmaceuticals and medical materials to identify any items that have passed their expiration dates. Subsequently, it asked departments storing such items to dispose of them and also thought of ways to reduce the difference between book and physical inventory, as well as stock levels. (AY 2019 plan implementation) • By using HOMAS2, the Hospital calculated quarterly department costs and the fifth- to tenth-highest quarterly diagnosis procedure combination costs incurred in each department and then notified the respective departments of this information. • In addition, the Hospital calculated monthly department medical fees that patients already discharged had incurred and were billed for, based on the Diagnosis Procedure Combination/Per-Diem Payment System, and subsequently reported the calculations at the Hospital's quarterly management planning meeting. • In addition, the Hospital analyzed financial statements and other data released by other national university hospitals, and based on its analyses, developed benchmark indicators for identifying any issues underlying its operations.	To strategically operate its business and thereby improve its financial status, in addition to continuing to apply its cost-accounting perspective to the management of its financial matters and also using HOMAS2 to analyze income and expenses, the Hospital will develop measures to visualize the financial status of all of its departments, based on such income-and-expense analyses and its benchmark indicators.

[40] Take the following actions to develop comprehensive community care systems, i.e., efficient systems for providing high quality medical care, to respond to medical needs that will arise in the near future: 1) collaborate more closely with Hiroshima Prefecture, Hiroshima City, and medical associations to improve and maximize the use of currently existing systems for providing medical care in cities in Hiroshima Prefecture; 2) maximize the use of medical personnel; and 3) promote functional differentiation and collaboration with other core hospitals in cities in Hiroshima Prefecture.	III	(Overview of AY 2016 to AY 2018 plan implementation) To help core hospitals (i.e., Hiroshima University Hospital, Hiroshima Prefectural Hospital, Hiroshima City Hiroshima Citizens Hospital, Hiroshima Red Cross Hospital & Atomic-bomb Survivors Hospital, and Hiroshima City Funairi Citizens Hospital) establish an effective and efficient system for jointly providing high quality medical care to all cities in Hiroshima Prefecture, in June 2016, the following organizations, which help administer the core hospitals, concluded a Collaboration Agreement on Helping Core Hospitals: 1) Hiroshima University Hospital, 2) Hiroshima Prefectural Hospital, 3) Hiroshima City Hospital Organization, 4) Hiroshima Red Cross Hospital & Atomic-bomb Survivors Hospital, 5) Hiroshima Prefectural Medical Association, 6) Hiroshima City Medical Association, 7) Hiroshima Prefecture, and 8) Hiroshima City. The core hospitals then jointly decided that since refractory and rare diseases require specialization, they should each specialize in treating specific ones. Subsequently, Hiroshima University Hospital was assigned refractory epilepsy and corneal diseases requiring corneal grafting, and along with the Hiroshima Red Cross Hospital & Atomic-bomb Survivors Hospital, it was also assigned aplastic anemia. (AY 2019 plan implementation) To fulfill the Hospital's role as Hiroshima Prefecture's core epilepsy treatment hospital, in May, the Hospital's Epilepsy Treatment Medical Collaboration Committee held a meeting for the first time to discuss its business plan for AY 2019. In addition, in June and February, the sub-working group of the Epilepsy Treatment Medical Collaboration Committee held briefing sessions and discussions on patients' conditions observed in AY 2019. Furthermore, the Hospital held monthly case meetings to exchange information with partner medical institutions. In addition, in July and November, the steering committee of the Epilepsy Center met to prepare to request approval for establishing an epilepsy treatment facility.	To establish an effective and efficient system for core hospitals to jointly provide high quality medical care to all cities in Hiroshima Prefecture, the Hospital will help core hospitals maintain their functions and maximize their strengths at the same time to vertically collaborate with local hospitals and use case-series data to provide better medical care. In addition, it will take the following actions to develop a system for providing advanced medical care: 1) begin offering online medical consultation services in AY 2020 for epileptic patients to collaborate more closely with medical institutions in remote areas; 2) help hospitals in Hiroshima Prefecture differentiate themselves from one another so that medical resources can be allocated both evenly and unevenly as necessary; and 3) promote inter-hospital functional differentiation and collaboration to help lay the foundations for responding to future medical needs.

II Improving the quality of the University's education and research
(4) Other goals
④ Goals of attached schools

Medium-term goal	[18] Incorporate international perspectives into education and research activities and teaching practice programs in ways that will help students of all ages, from kindergarten- to senior high school-age, to help the University fulfill its goal that it set when applying for the Ministry of Education, Culture, Sports, Science and Technology's Super Global University Creation Support Project. In addition, fulfill attached-school roles as designated teacher training bases that welcome teachers from various regions to help improve the quality of education throughout western Japan.

Medium-term plan	Progress	Descriptions and explanations (of plan implementation)	
		Plan implementation by AY 2019	Plans to be implemented in AY 2020 and AY 2021
[41] Develop by AY 2018 elementary and junior high school curricula and evaluation criteria (e.g., rubrics) with focus on helping develop global competence—e.g., foreign-language, critical-thinking, and logical-thinking skills, the ability to work as a team, and leadership. Subsequently, implement and evaluate the curricula, and also assess whether they produce the desired effects.	III	(Overview of AY 2016 to AY 2018 plan implementation) To help students of all ages, from kindergarten- to senior high school-age, attending its 11 attached schools develop global competence, the University first developed rubric to measure how well its attached schools' existing curricula were helping students develop global competence. In addition, the University developed curricula designed to help students acquire global competence in accordance with the recently revised curriculum guidelines and subsequently developed indicators to assess how well the curricula helped students acquire the targeted abilities and skills. In AY 2016, the Research Promotion Committee held a meeting to develop cross-school evaluation standards for the University's attached schools, tailored to each school type. Subsequently, attached schools held school-type-based meetings to develop cross-school rubrics and produced drafts in AY 2017. In AY 2018, attached schools developed their own evaluation criteria and decided which assignments to use to evaluate student progress, based on actual classroom outcomes, and also examined whether their rubrics were working to their advantage. In addition, the Research Promotion Committee held a meeting in the same year to discuss whether the rubrics required any revisions and confirmed that none were needed. (AY 2019 plan implementation) To help students acquire global competence, attached schools applied the teaching methods and evaluation criteria they developed in AY 2018, including their decisions on which assignments to use to evaluate student progress. In AY 2019, the Research Promotion Committee held a meeting to confirm whether the teaching methods employed at attached schools, including the use of rubrics to evaluate student progress, were producing the desired effects. At the meeting, attached schools gave briefings on underlying issues that need to be resolved by the end of the academic year, which revealed the following facts: 1) a number of teachers at some attached schools, not in charge of this research project, need to achieve a better understanding of how the rubrics work and 2) ensuring that different teachers arrive at equivalent evaluations of student progress seems more difficult with some subjects than others. Nevertheless, the meeting confirmed that the rubrics did not require any revisions.	Attached schools will examine whether the teaching methods and evaluation criteria (i.e., the rubrics) they developed in AY 2019 to help students acquire global competence are transferable to other public schools and improve them as necessary. Subsequently, after any improvements deemed necessary are made, the teaching methods and rubrics will be promoted widely.

[42] In accordance with the School of Education and Graduate School of Education's policy of cultivating teachers with global competence, help students in the following ways: 1) help those who come to the University's attached schools for teaching practice become able to help their own students develop global competence, teach classes in English, and teach in an active learning classroom; and 2) provide graduate school students with internship programs at the University's attached schools so that they can acquire practical teaching skills.	III	(Overview of AY 2016 to AY 2018 plan implementation) The University took the following actions to help attached-school teachers improve their abilities and skills needed to cultivate global citizens so that they will be able to help teacher-trainee students help their own students develop global competence: 1) sent them to Temasek Junior college (in Singapore) for overseas training; and 2) provided them with various training programs, both on and off campus, including training on taking an active learning approach to teaching. In addition, to ensure that attached-school teachers will be able to help teacher-trainee students teach classes in English, the University provided them with opportunities to practice developing teaching materials and lesson plans in English. The University also developed a system for providing graduate school students with internships at its attached schools and welcomed three such students as part-time teachers. (AY 2019 plan implementation) The University took the following actions to help attached-school teachers improve their abilities and skills needed to cultivate global citizens so that they will be able to help teacher-trainee students help their own students develop global competence: 1) sent them to the University of Chicago Laboratory Schools (in the U.S.) for overseas training and 2) provided them with various training programs, both on and off campus. In addition, attached-school teachers provided teacher-trainee students with practice in developing teaching materials and lesson plans in English and also helped them acquire new teaching methods, including active learning approaches. Furthermore, attached schools welcomed five graduate students with teaching licenses and provided them with opportunities to acquire practical teaching skills, such as through checking students' homework, grading quizzes, and developing teaching materials.	The University will build a system that will help teacher trainee students acquire methods for the following purposes and also share them between themselves: 1) helping their own students develop global competence, 2) teaching classes in English, and 3) engaging students more actively in the classroom. In addition, the University will examine whether its programs were able to help graduate school students who interned at its attached schools before AY 2019, and based on that examination, it will develop better internship programs to be offered next medium term.
[43] Fulfill the University's role as western Japan's base for teacher training, and to do so, develop systematic teacher training programs and also negotiate more exchange agreements with boards of education in western Japan.	III	(Overview of AY 2016 to AY 2018 plan implementation) In AY 2016 and AY 2017, attached-school principals held thought-sharing sessions with the Hiroshima Prefectural Council of School Superintendents on possibilities for collaborating with other public schools and local communities. In addition, to help cultivate teachers able to serve key roles in their own schools' efforts to improve classes, in AY 2018, in accordance with a memorandum of understanding on teacher training, Hiroshima University Junior High and Senior High Schools welcomed one teacher from a private school in Hiroshima Prefecture. Furthermore, the University concluded an agreement with Hiroshima Prefecture on providing preschool teachers with long-term training and welcomed one kindergarten teacher to Hiroshima University Kindergarten. (AY 2019 plan implementation) To strengthen its foundation for helping teachers improve their abilities, on August 27, 2019, the University concluded a comprehensive agreement with the Japanese School of Singapore on teacher dispatch, exchange, and collaboration, and on March 6, 2020, it concluded a personnel exchange agreement with Tokyo Gakugei University. In addition, to improve its teacher-exchange-based training system, after teachers of other public schools completed their training at the University's attached schools, returned to their own schools, and worked at least a year, the University asked them, and their supervisors, to answer a survey on the training	To examine whether its teacher training programs have been able to help participants acquire targeted abilities/skills, the University will administer surveys with help from the following two sources: 1) teachers who were sent from exchange partner schools to participate in its attached-schools' training programs and 2) the local boards of education that sent them. In addition, based on the results of its examination conducted in AY 2020, the University will comprehensively inspect its teaching training system for any underlying issues that need to be resolved. Furthermore, the University will put effort into negotiating more exchange agreements with prefectures. (Complete)

		program the teachers participated in. Consequently, the survey showed that a large number of participants thought the programs helped them improve their skills at not only teaching subjects and guiding students but also conducting educational research, such as in developing curricula. On the other hand, many participants also said they thought there were too many participants. Accordingly, to ensure information sharing between participants and attached-school teachers, the University decided to incorporate opportunities for participant-teacher communication into its programs. The University also revised its Attached School Trainee Guidelines to provide participants with opportunities to study at its graduate schools as internal trainees. In addition, the University produced booklets introducing unique efforts being made at its attached schools.	

II Special improvements made in the quality of the University's education and research

I Improvements made in the quality of education and research at the University's schools/offices

(1) Education

① Efforts to cultivate global citizens

[AY 2019]

i) Providing better liberal arts education [Project No. 4]

In accordance with the revisions it made in AY 2018 to its liberal arts education curriculum, in AY 2019, the University continued to provide faculty with training on teaching the cross-school compulsory course "Introduction to University Education" and incorporating active learning approaches into the classroom. The special series of lectures titled "Liberal Arts for Global Citizens," provided as part of the "Introduction to University Education" course, welcomed 4,892 student attendees. As was reflected in the results of a subsequently administered satisfaction survey, which showed that the attendees were generally satisfied, the lectures, based on real-life experiences, demonstrated the extensive knowledge of the lecturers, who represented various fields, and thereby inspired the attendees as follows.

- To the question "How interesting did you find the lectures?," about 85% of all respondents answered "Extremely interesting" or "Rather interesting."
- To the question "How confidently can you say you acquired new ideas or perspectives from the lectures?" about 90% of all respondents answered, "Extremely confidently" or "Rather confidently," indicating that the lectures were student-friendly and full of helpful information.
- To the questions "How helpful were the lectures in terms of your studies and other aspects of college life? and "How helpful were the lectures in terms of deciding what you want to do with your future?" about 80% of respondents answered, "Extremely helpful" or "Rather helpful," indicating that immediately after enrollment was the right timing to offer this series of lectures because they motivated students to think about their next four years at college and their future job.

ii) Establishing cross-graduate school courses [Project No. 5]

To help students gain extensive and cultured knowledge and encourage them to help advance "Science for Sustainable Development," the Graduate School of Integrated Sciences for Life and the Graduate School of Biomedical and Health Sciences, both established in AY 2019, developed a number of cross-graduate school courses, comprising the two course categories of Sustainable Development Courses and Career Development and Data Literacy Courses. Cross-graduate school courses are electives designed to help students in the following ways: 1) acquire an accurate understanding of the development of current social systems and the basics of modern life needed to lead a fulfilling life and 2) think of ways in which they can apply their expertise on the Science of Sustainable Development to helping create a better world. In addition, the courses are offered to all students in the two newly established graduate schools, and students are required to take at least one course and earn at least one credit from both course categories. The numbers of Sustainable Development Courses and Career Development and Data Literacy Courses that were offered in AY 2019 in both master's and doctoral degree programs were as follows: master's degree programs offered seven Sustainable Development Courses and seven Career Development and Data Literacy Courses, doctoral degree programs offered four Sustainable Development Courses and 10 Career Development and Data Literacy Courses.

iii) Implementing a Frontier Development Program for Genome Editing as part of the WISE Program (Doctoral Program for World-leading Innovative & Smart Education) [Project No. 5]

The University's Frontier Development Program for Genome Editing—the only program in the Chugoku and Shikoku area, accepted by the Ministry of Education, Culture, Sports, Science and Technology as one to be undertaken as part of its WISE Program (Doctoral Program for World-leading Innovative & Smart Education)—was implemented with help from 12 students from different graduate schools. The Frontier Development Program for Genome Editing aims to develop a five-year doctoral degree program comprising a five-year Life Science Course and a four-year Medical Course, taught by scholars with world-leading teaching and research skills, able to offer original high-quality curricula designed to help develop a comprehensive knowledge of genome editing, from the basics to application, along with a set of special skills, and thereby cultivate adept genome engineers ready to work in the industry. To help develop practical cutting-edge research development skills, the Program will also offer opportunities to conduct joint research with companies participating in the University's Program on Open Innovation Platform with Enterprises, Research Institute and Academia (OPERA) and other partner institutions.

iv) Ensuring the quality of the University's double degree programs [Project No. 6]

The University's schools/offices counted the number of students their double degree programs attracted and thereby examined whether their programs achieved their target. In addition, the University's headquarters and school/office staff in charge of double-degree programs met to examine whether any issues underlie their curricula and/or implementation method, and after identifying a number of such issues, considered how they could be resolved. Through such efforts, the University acquired more know-how about collaborating with universities overseas in administering double-degree programs. Subsequently, such know-how helped the University in submitting a plan to the Ministry of Education, Culture, Sports, Science and Technology in August to establish joint degree programs in collaboration with the University of Graz (in Austria) and Leipzig University (in Germany), for which it received approval in December to establish them in October 2020.

v) Promoting a Joint Graduate School Program administered in collaboration with the Capital Normal University (in China) [Project No. 6]

In collaboration with the Capital Normal University in China, where the University's Beijing Research Center is located, in AY 2015, the University began offering a joint graduate school program titled the "Capital Normal University-Hiroshima University Joint Graduate School Program, which offers a number of double degree master's programs. In AY 2019, after calling for and screening applicants, the University selected four prospective students for enrollment in the programs in AY 2020 (note: five were selected in AY 2016, nine in AY 2017, six in AY 2018, and three in AY 2019).

In addition, in AY 2019, the Program produced 15 double-degree master's program graduates and helped three of them proceed to its doctoral programs, meeting its goal of encouraging more talented students to continue their studies in its doctoral programs.

② Educational quality improvement efforts

i) Establishing a Center for Academic Practice and Resources [Project No. 13]

After receiving feedback from the Student Experience in the Research University (SERU) Consortium, based on its international-standard quality assurance screening, and also after reading the Ministry of Education, Culture, Sports, Science and Technology's Grand Design for Higher Education toward 2040 (report), the University recognized the need to put students at

the center of learning and help them see their own progress. Accordingly, on April 1, 2020, to provide students with consultation services and help with their studies and thereby significantly improve its educational environment, the University decided to establish a Center for Academic Practice and Resources in the Education Office.

③ Student support

i) Improving career support [Project No. 15]

The University's Global Career Design Center provided the following career support to help students with their job search.

- The "Career Design Course—Graduates, now Experts in Their Industries, Offer Tips for Choosing Your Future Career," which the University began offering in AY 2018 as a one-credit course (comprising eight lectures), was redesigned in AY 2019 as a two-credit course (comprising 15 lectures) with additional activities designed to help students think about their future career (and welcomed 249 students).
- To see whether it will be able to fund its Home for Innovative Researchers and Academic Knowledge Users (HIRAKU) Project after the expiration of the Ministry of Education, Culture, Sports, Science and Technology's subsidy, titled the "Program for Developing Next Generation Researchers for the Building of Consortia for the Development of Human Resources in Science and Technology," the University allocated its own budget, and also with financial help from companies, it was able to administer all of its activities as follows: 1) helping students participate in long-term internships (14 students) and 2) holding the HIRAKU 3MT (Three Minute Thesis) Competition 2019 (on September 14).

Consequently, the University joined the higher ranks of Nikkei Research's University Image Survey of Company Human Resources Representatives as follows: 1) ranked 5th overall, 2) 3rd in the ranking for activeness, 3) 1st for sociability, and 4) 12th for intelligence and academic performance.

ii) Holding the Hiroshima University Community Meetings with guardians [Project No. 15]

The University continued to hold Hiroshima University Community Meetings with guardians/parents—the first of which it held in AY 2018—and in AY 2019, it met with parents/guardians of undergraduate freshmen and sophomore students and offered the following items: 1) briefings on student life, studying abroad programs, and future career trends; 2) lectures by graduates and graduate school students; 3) opportunities for all participants to exchange information with one another; and 4) private consultation services. The community meetings in AY 2019 were held at four venues (in Kobe, Hiroshima, Nagasaki, and Matsuyama) and welcomed 262 participants. All meetings were generally well-received, according to a survey that participants were asked to answer afterwards, with more than 85% of them grading all items comprising the meetings with scores of four or higher, based on a grading system of one to five with five being the highest. The University intends to hold similar meetings in AY 2020 and thereafter, and also annually improve its community meeting program and find appropriate venues.

iii) Improving education on accessibility [Project No. 16]

Physically-challenged students today tend to have more diverse needs compared to the past, and the number of such students is increasing as well. Special-help requests from students with developmental and mental disorders showed the most marked increase, and to respond to them, the University took the following actions aimed at forming a strong foundation for providing special help by developing and ensuring the functionality of on- and off-campus networks of resources: 1) appointed a senior coordinator to the Accessibility Center to improve liaison between on- and off-campus organizations; 2) increased the number of on-campus helpers (from 22 per school/office to 100 per program); and 3) helped increase the number of institutions, including universities, affiliated with the Universal design in Education-Network in the Chugoku-Shikoku area (from 13 to 17).

④ Improving the University's entrance examination system

i) Introducing new criteria to the University's screening process for selecting undergraduate enrollees for AY 2021 [Project No. 17]

In response to the Minister's Message released by the Ministry of Education, Culture, Sports, Science and Technology on November 1, primarily about the withdrawal of its plan to develop a University Admission English Language Test Score Provision System, the University announced on its website its policies on applying private-sector English language test scores, regardless of the Minister's Message, to its general entrance examination, Hiroshima-University Shining, Admissions Office, and Recommendation-based entrance examinations, along with its intention to continue using the Assumed Perfect Score system in relation to the National Center Test for University Admissions' foreign language (English) test, for selecting enrollees for AY 2021.

(2) Research organizations

① Developing world-leading research bases

i) Efforts to continue to develop various research bases and help them expand [Project No. 21]

Since AY 2013, the University has made internal open calls for research institutes interested in being certified as an incubation research center, and screens applicants based on whether they have the potential to expand such centers, if selected, into world-leading research bases. The University operates a support system that helps research institutes with significant research findings expand into Centers of Excellence by winning external funding so that they can operate independently of its budget. In AY 2019, the University certified one research institute as an incubation research center. In addition, incubation research centers and Centers of Excellence conduct medium-term and end-of-academic-year evaluations. The screening of research institutes interested in being certified as an incubation center—which is interview-based and conducted by the University's Research Promotion Committee, comprising the President as the Committee Chair and all Deans/Directors—has previously certified at least 23 research institutes, the current breakdown of which is as follows: 11 incubation research centers and 12 Centers of Excellence. In addition, to accurately identify and evaluate researchers who have the potential to develop socially-responsible bases for international interdisciplinary research with help from the University, the screening process also involved the use of diverse evaluation indicators.

Furthermore, to provide graduate school students with opportunities to collaborate with such incubation research centers and Centers of Excellence and thereby maximize the use of such centers beyond just research, in AY 2019, the University implemented a project aimed at developing a super interdisciplinary international research and education base, titled the Cutting-edge International Project. Subsequently, it selected the Hiroshima Institute of Health Economics Research—a recently certified Center of Excellence—for its Cutting-edge International Project.

Furthermore, in addition to developing incubation research centers and Centers of Excellence, the University built networks of both on- and off-campus organizations to create a system for setting up research bases for collaborating with international organizations on joint and interdisciplinary research and subsequently established the Hiroshima University-RIKEN Joint Research Center.

ii) Expanding international research networks [Project No. 21]
To expand international research networks and thereby promote international joint research and the co-authorship of scientific papers with international scholars, in AY 2019, the University concluded the following number of comprehensive agreements with international universities: 1) 28 interuniversity agreements (total: 370) and 2) 17 inter-school/office agreements (total: 398).
In addition, in AY 2019, the University and Higashi-Hiroshima City's joint city-planning proposal titled "Sustainable University Town Initiative Driven by Academic Enterprise" was adopted by the Ministry of Education, Culture, Sports, Science and Technology for its Dealing with Social Issues in Regions through Science and Technology Innovation (Design-i) project. To successfully undertake the project, the University and Higashi-Hiroshima City surveyed the city after which the proposal was modeled, i.e., the City of Tempe, which is home to Arizona State University—one of the most innovative universities in the U.S.—with which the University recently began collaborating in education and research. Consequently, while conducting the survey in the U.S., the University learned of a successful university-town management model called "towns and gowns." The word "town" in this phrase refers to the non-academic community of a university town and "gown" to the university community. Therefore, towns and gowns functions as permanent platform for collaboration between the two communities. The University and Higashi-Hiroshima City subsequently decided to adopt this university town management model, and in January 2020, the President of Hiroshima University and the Mayor of Higashi-Hiroshima City agreed to establish a Town & Gown Office.
The University and local municipalities closely collaborated in making the above internationally-minded efforts and thereby helped greatly promote the SDGs and quickly resolve social issues.

② Helping researchers and maximizing the use of research resources

i) Strengthening the University's researcher support system [Project No. 25]
In AY 2019, the University began implementing a project titled the "Cutting-edge International Project," aimed at finding research centers to assign the undertaking of studies into areas the University has decided to prioritize, and adopted the following screening criteria: 1) find research centers primarily operated by young researchers and 2) ones that collaborate with educational programs. [Project No. 21]. In addition, to help researchers maintain their motivation, the University developed a research activity evaluation system designed to accurately assess their efforts. Subsequently, it recognized that the system's function of making such accurate assessments also enables the assignment of researchers strategically to areas that the University has decided to prioritize. [Project No. 23]. Thus, the University's research management functions—identifying the areas that need to be prioritized and evaluating researchers' efforts—are now systematically interconnected. In addition, to develop an attractive career path for University Research Administrators (URAs), who play a key role in the University's research management system, and thereby help them maintain their motivation and also improve organizational sustainability, the University decided to reassign URAs to the category of government officials employed before the incorporation of national universities, and to do so, it secured sufficient subsidy to cover operating expenses and revised its work regulations. Helping URAs maintain their motivation in this way led to building a more efficient and effective researcher support system and thereby improved the University's research management system.

(3) Efforts to strengthen the management skills needed to promote industry-academia-government collaboration

i) Efforts to strengthen the management skills needed to promote industry-academia-government collaboration [Project No. 28]
Following the establishment of its first co-creation research center in April 2018, the University established another one on April 1, 2019, called the Presymptomatic and Preventive Medicine Research Center—the second of its kind established by the University.
In October 2019, the University merged its Organization for Research Promotion and Organization for the Promotion of Industry-Academia to form the Organization for Academic Research and Industry-Government Collaboration—a research management system able to help researchers not only perform basic and interdisciplinary research but also transfer technology seamlessly. In addition, it merged the Academic Office, the Office of Industry-Academia-Government and Community Collaboration, and the Industry-Community Collaboration Center to establish the Office of Research and Academia-Government-Community Collaboration and revised the rules accordingly.
On October 1, the University developed an Open Innovation Platform under the President's authority and put it in charge of stimulating constant development of major joint research projects with companies, and managing them. The Open Innovation Platform also takes part in implementing measures aimed at helping promote industry-academia-government collaboration, including the following: 1) designing incentive systems, 2) formulating rules for helping startups, and 3) developing guidelines for preventing conflicts of interest.
On February 18, 2020, the Platform revised the Guidelines for Protecting Confidential Information Obtained through Industry-Academia Collaboration to reflect the following perspectives: 1) preventing all parties involved from leaking the University's yet-to-be-released research findings and 2) preventing all parties involved from accidentally disclosing confidential information to third parties (i.e., unauthorized disclosure).

ii) Proper joint-research cost sharing efforts [Project No. 28]
To motivate researchers to collaborate on joint research and thereby promote such efforts, the University decided to introduce in April 2020 a new system for calculating indirect costs, called "basic research promotion costs," which estimates the value that a given researcher's academic knowledge contributed to his/her joint research and incorporates that value into the project's indirect costs.

(4) Collaborating with external organizations to help communities develop

i) Developing large-scale joint research with external organizations [Project No. 28]
To stimulate constant development of major joint research projects with companies and manage them effectively, the University applied for participation in the Ministry of Education, Culture, Sports, Science and Technology's Open Innovation Institute Establishment Project, passed the document-based screening, and went on to visit the actual site. However, it failed the subsequent interview and was informed on August 28 that it was not selected. Subsequently, to achieve its aim stated above, on October 1, the University developed an Open Innovation Platform (OI Platform) under the President's authority. In addition, to strengthen the OI Platform and thereby accelerate its efforts, the University built a personnel network, put effort into finding companies with matching interests, and appointed the following personnel: 1) advisers on identifying potential technology seeds and 2) technology advisers. The University also carefully analyzed fluctuation trends in the number of joint research projects to identify the reasons behind any increases. It also estimated the amount of income that could be expected from joint research projects next academic year and set a short-term goal, based on that estimate, for AY 2024. To achieve its short-term goal, the University currently puts effort into

conducting internal searches for technology seeds and external searches for companies with matching joint research interests.
Furthermore, to promote inter-organizational industry-academia collaboration, the University concluded more comprehensive collaboration agreements and also increased the number of courses it offers on joint research. The number of comprehensive collaboration agreements concluded in AY 2019 was six, bringing the total of such agreements to 88.
In addition, eight courses on joint research were newly developed in AY 2019, bringing the total of such courses to 23. To help researchers make more findings that can be used for the public good and thereby introduce innovation, the University actively encourages companies to establish long-term industry-academia research centers on campus and promotes major inter-organizational joint research projects.

ii) Building a research complex [Project No. 28]
The Research Complex Promotion Council's coordinators held a meeting on January 22 and gave briefings on progress made in AY 2019, sought approval for future plans, and shared their thoughts on matters relating to the building of a research complex. From here on, the University will consider possibilities for collaboration between the future research complex and other projects with the aim of producing synergistic effects and developing new research areas.
In addition, to develop new research areas, the University held two *hyakunin ronbun* (Researcher Matchmaker Project) events (the first: from June 24 to 28; the second: from November 18 to 22). It also built a matchmaker website to exchange ideas with visitors, which so far has received 600 comments. The matchmaker projects and website have helped the University and researchers at other universities find partners with matching interests and jointly apply for Grants-in-Aid for Scientific Research. The University will implement more matchmaker projects and innovation development events next academic year to accelerate the building of the research complex.
In addition, to provide local community innovators with opportunities to review the basics of engineering and learn about new trends, including their practical applications, in AY 2019, the University held nine Brush-up Seminars (formerly called Innovation Training Programs) and welcomed 472 participants (note: 12 Brush-up Seminars were originally scheduled; however, three that were to be held in the end of February and thereafter had to be canceled due to the novel coronavirus).
Furthermore, from February 17 to 23, the University offered its 6th Hiroshima Entrepreneurship Program. The Entrepreneurship Program was jointly held with the University's Japan-India International Linkage Degree Program (ILDP), jointly administered with an Indian university, and as its theme, the Program adopted Takehara City Tadanoumi area's proposal, originally submitted unsuccessfully for the University's community collaboration project titled "Community Invigoration Project." The Program welcomed 15 participants as follows: three MBA students from one of the University's partner universities—the Indian Institute of Management Ahmedabad (IIMA)—three international Hiroshima University students, one (international) Special Postdoctoral Researcher, and eight (Japanese) Hiroshima University students. Two instructors from IIMA gave one lecture each, and guest lectures and workshops were provided by the following participants: the University's entrepreneurship specialists, entrepreneurs, representatives of local community organizations, and programming instructors.

iii) Efforts to set up new University startups [Project No. 28]
To use research findings for the public good, help develop new industries, including University startups, and revitalize the economy, the University began working with Hiroshima Bank and Hiroshima Venture Capital to set up a Venture Fund for Hiroshima University and Other Universities in Hiroshima Prefecture. After negotiations, inventors agreed to provide 500 million yen to help set up the Fund in April 2020 at the earliest.
In addition, the University's project team working on developing bone marrow mesenchymal stem cell magnetic targeting devices will set up a startup in early April 2020, under the scheme proposed by the Japan Science and Technology Agency's Program for Creating STart-ups from Advanced Research and Technology (START).
Furthermore, the University continued to help fund the setting up of University startups, such as by holding fundraisers, and in AY 2019, three were newly set up.
In February 2020, after one of its graduate school students won in January 2020 the grand prize in the Chugoku Tournament of the Campus Venture Grand Prix and went on to the national tournament, the University provided the student with mentoring, helping him to subsequently win the Judge's Special Prize.
In AY 2019, to promote student entrepreneurship, the University helped set up a student entrepreneurship club, called the 1st Penguin Club. In addition, to provide the 1st Penguin Club with a base for its entrepreneurship activities, with donations from Fukuyama Transport and the Shibuya Scholarship Foundation, in November 2019, the University built a Fukuyama Transport Komaru Nigiwai Pavilion multipurpose hall in the north of the Central Library on Higashi-Hiroshima Campus.

iv) Center of Innovation (COI) [Project No. 28]
As part of the Japan Science and Technology Agency's Center of Innovation Program, of which the University is one of the core participants, the University's Nurturing Mental Wealth–Center of KANSEI Innovation continued its research into the mechanism behind the interaction between our senses when we suddenly realize things, and to find ways to use its previous research findings for the public good, it also pursued research deeper into the fundamental mechanisms of perception. In addition, the Center of KANSEI Innovation developed a prototype of a new perception sensing device by applying its basic research findings to the underlying technology of such sensing devices. Subsequently, it collaborated with multiple partner companies in conducting empirical research to find practical applications for the new device.
In December 2019, to share research findings with partner companies and thereby strengthen collaborative partnerships, the Hiroshima University COI Core Base, National Institute for Physiological Sciences COI-S Base, and Optical Technology Development COI-S Base held a three-party COI-base joint progress briefing, which was attended by 113 participants.
Furthermore, in addition to building the COI's foundation (i.e., its website, systems, and industry-academia network), the Center of KANSEI Innovation put effort into finding ways to continue conducting research and become independent. Consequently, it decided to strengthen the trinity of research, education, and industry-academia collaboration, centered around its Brain, Mind and KANSEI Science Center, which was established in AY 2018, and also reorganized its COI management system.
Subsequently, at a COI meeting, held immediately after the reorganization of the COI management system, the following efforts aimed at achieving the vision mentioned above and progress made by then were presented to the COI's visionary team: 1) a recently developed backcasting approach to finding ways to continue conducting research, 2) progress in research development, 3) plans for using research findings for the public good, and 4) efforts to constantly stimulate innovation and thereby become independent. The presentation included a preview of the COI's grand plan for after the expiration of the Japan Science and Technology Agency's Center of Innovation Program and for using research findings for the public good, which was extremely well-received as being steadily formulated and showing great progress.

v) Developing a Program on the Open Innovation Platform with Enterprises, Research Institute and Academia (OPERA) [Project No. 28]

To promote full-scale inter-organizational industry-academia joint research, the University closely collaborated with industries in building and operating a Genome Editing Industry-Academia Co-Creation Consortium, currently comprising 33 organizations (10 institutions, including universities, and 23 private companies).

In the Japan Science and Technology Agency's interim evaluation, the Consortium received a five (with five being the highest on the grading system) for its excellent research findings and consortium structure.

In addition, with the aim of finding a way to continue operations after the expiration of the Japan Science and Technology Agency's Center of Innovation Program, the Consortium successfully submitted a number of project proposals to the New Energy and Industrial Technology Development Organization (NEDO).

vi) Hiroshima Manufacturing Digital Innovation Creation Program [Project No. 28]

To help car and other leading manufacturers in Hiroshima Prefecture further improve their product development and production technology, and also refine the University's industry-academia collaboration model, in February 2019, the University set up the Hiroshima University Digital Monozukuri (Manufacturing) Education and Research Center—a new base for promoting the cultivation of digital innovators and the development of creative industry-academia research. Subsequently, to widely publicize the Center's activities, on June 6, 2019, the University held a signboard unveiling ceremony and an opening commemorative lecture meeting (participants: 231). In addition, the Center set up booths at technological exhibitions and offered public seminars.

To ensure proper management, the Hiroshima University Digital Monozukuri (Manufacturing) Education and Research Center also holds monthly progress review meetings with the Steering Committee, program supervisors, the Director of the Center, and project leaders.

In addition, to promote collaboration with the community and companies, the Center concluded co-creation memorandums, developed guidelines on handling intellectual property and achievements that result from implementing programs, and formulated rules for handling confidential information that parties access in implementing programs, and based on them, the following consortiums were established with help from 40 participant companies, the breakdown of which is as follows: 1) the Ingredient Model-based Research Consortium with 11 companies, 2) the Data-driven Smart Stem Consortium with 15; and 3) the Smart Inspection and Monitoring Consortium with 14.

To help participants acquire new knowledge and skills, the consortiums offered a total of 199 regular events, including general workshops, theme-based workshops, and seminars, welcoming 2,857 participants.

In addition, to find practical applications for the University's technologies, in addition to initiating two joint research projects, the Hiroshima University Digital Monozukuri (Manufacturing) Education and Research Center developed joint research courses titled as follows: 1) Innovative Freezer System Design Techniques and 2) Data-driven Smart Systems. Furthermore, the Center produced the following number of intellectual properties: 1) four applications for patents and 2) three contracts for providing know-how.

vii) Efforts made by the Resilience Research Center [Project No. 28]

The Resilience Research Center was set up in September 2018 to promote continuing research into disaster prevention and mitigation through collaboration with researchers and thereby help develop practical disaster mitigation measures. To fulfill its role as an institution with roots deep in the community, the University collaborates with municipalities and other external organizations in conducting disaster prevention and mitigation research, using findings for the public good, and cultivating personnel.

To develop a world-leading research base for studying landslide-flood synergistic disasters, which could very likely become a major global climate-change issue, in AY 2019, the University formulated a comprehensive plan for creating a large empirical research field on Gagara Mountain—the University's own property—titled the "Master Plan for Creating a Gagara Mountain Empirical Research Field."

In addition, for the first time, the University implemented a Hiroshima University Crowdfunding campaign for a number of projects, including the following title, which raised its target amount: the "Hiroshima Gagara Mountain Empirical Research Project, Aimed at Preventing Debris Flow Disasters, Begins." (Duration: November 22 to January 16; amount raised: 3.553 million yen). These funds were used to initiate the Gagara Mountain Field Empirical Research project.

Furthermore, the University had an opportunity to match seeds and needs with the Ministry of Land, Infrastructure, Transport and Tourism's Chugoku Regional Development Bureau. Consequently, four of its research projects relating to disaster prevention were adopted.

In April, the Mayor of Higashi-Hiroshima City held a press conference, during which he introduced a joint development between the City and University—a Virtual Reality-based Debris Flow Disaster Evacuation Training Simulator.

On May 29, the University offered a public lecture titled "The 2018 Japan Floods—From the Forefront of Research into Landslide-flood Synergistic Disasters," which welcomed about 30 participants.

On June 3, the Hiroshima University Resilience Research Center held its 1st Joint Municipalities' Meeting for AY 2019, which welcomed 40 risk management representatives from 23 cities and towns in Hiroshima Prefecture, and Iwakuni City and Waki Town of Yamaguchi Prefecture.

On July 5, the 2018 Japan Floods Disaster Assessment Team gave a final public briefing and released the 2018 Japan Floods Disaster Assessment Report.

On September 30, to mark its one-year anniversary, the Resilience Research Center held a public discussion event titled "Residents, Scholars, and Officials Recall the Landslide-flood Synergistic Disaster," which welcomed about 90 participants.

On November 18, the Center provided disaster risk management officials with training, which was participated in by 29 risk management representatives from 18 cities and towns in Hiroshima Prefecture.

On February 12, the University held a thought-sharing session with the Ministry of Land, Infrastructure, Transport and Tourism's Chugoku Regional Development Bureau, titled "Measures against Common Large-scale Natural Disasters." At the session, 14 representatives of the Ministry of Land, Infrastructure, Transport and Tourism's Chugoku Regional Development Bureau, including its Director, and 10 representatives of the University, including the President, Executive Directors, and the Director of the Center shared their thoughts on possibilities for future joint research and received a presentation on the Resilience Research Center's latest project—the Gagara Mountain Empirical Research Project.

As part of the Japan Science and Technology Agency's West Japan Flood Restoration Support project—an A-STEP (Adaptable and Seamless Technology Transfer Program through Target-driven R & D) Function Inspection Phase Type project—the University developed a debris flow sensor and tested it in Kumano Town, where actual debris flow disasters have occurred. Subsequently, the University held a press conference in the local area to give a briefing on its test results, inviting five television stations and four newspapers.

viii) Assigning instructors and students to help resolve local issues [Project No. 28]

- In AY 2019, the University set up a Community Invigoration Project to help stimulate the local community and economy.
  The Community Invigoration Project works in the following way: 1) the University publicly offers to help organizations in the local community resolve any issue they may have; 2) subsequently, based on the issues it receives, the University assigns individual issues to instructors and students it considers the most suited; and 3) instructors and students help resolve issues assigned to them.
  Matching events were held on August 9 and August 30 to see whether the University could help local organizations find instructors and students most suited for helping resolve their issues. Consequently, 19 requests were received, and eight were responded to. (Each community invigoration project is eligible to receive funding of up to 300,000 yen.)
  Some projects helped students write their graduation thesis; others helped instructors teach classes (e.g., Introduction to Human Life Sciences [Home Economics]), offered in the School of Education's Human Life Sciences Education Course. Overall, community invigoration projects helped the University provide students with more educational opportunities to work with community organizations in conducting research into real-life issues.
  In addition, the Community Invigoration Project attracted the attention of municipalities, local communities, and the media, receiving coverage in the following number of articles in the newspapers provided below: 1) one article on matching events (in the Chugoku Shimbun), 2) two on requests accepted (in the Chugoku Shimbun and the Yomiuri Shimbun), 3) three on projects underway (of which two appeared in the Chugoku Shimbun, the other in Higashi-Hiroshima City's community newspaper "The Weekly Pressnet").
- In AY 2018, the University and Higashi-Hiroshima City jointly set up a Higashi-Hiroshima City Policy Challenges Joint Research Department and publicly offered to help resolve any issues there may be in the community. In 2019, the Department received the following types of requests, of which a number of them were responded to as follows: 1) four requests for the City (of the "needs" type), and 2) seven requests for universities (of the "seeds" type, of which four were for the University).

ix) Building international exchange facilities in preparation for developing an International Research Base of Higashi-Hiroshima City
[Project No. 28]
In preparation for developing an International Research Base of Higashi-Hiroshima City, in AY 2019, the University formulated a basic development plan for building international exchange facilities, designed to promote innovation and exchange and equipped with accommodations, on Higashi-Hiroshima Campus. The University also publicly called for a design-builder, screened applicants, and then selected a contractor. (Total floor area: about 4,000 m^2; project cost: about 1.5 billion yen; opening date: fall of 2021)
The international exchange facilities are intended to serve the following purposes: 1) function as an innovation base able to help the University, community organizations, municipalities, and other domestic and international universities collaborate to produce highly advanced research findings that can subsequently be used for the public good; and 2) function as accommodations when the University invites Japanese and non-Japanese world-leading researchers and talented international students.
Once the international exchange facilities are built, with the aim of putting down roots in the community, the University will take the following actions in collaboration with Higashi-Hiroshima City: 1) offer the base as a venue for both domestic and international researchers, students, entrepreneurs, companies, and community members to interact and promote open innovation; 2) create opportunities for representatives of international and local communities to interact; and 3) make more preparations for inviting people from overseas to accelerate the internationalization of Higashi-Hiroshima City.
On October 7, 2019, the University and Higashi-Hiroshima City concluded an Agreement on Building an International Research Base of Higashi-Hiroshima City, under which the two sides agreed to collaborate in developing innovation, promoting internationalization, improving transportation access, and providing international scholars and students with a better living environment. The University's project to build international exchange facilities is preliminary to the Higashi-Hiroshima City–University joint project, for which Higashi-Hiroshima City has agreed to provide 500 million yen in funding.
The international exchange facilities will serve as a symbol of the International Research Base of Higashi-Hiroshima City. Accordingly, they have been designed to stimulate interaction between international guests invited by the University, Japanese students, and local companies and thereby facilitate scientific and educational innovation.

x) Promoting regional revitalization—the University's role as the region's key educational institution [Project No. 28]
Despite the expiration of the Ministry of Education, Culture, Sports, Science and Technology's Center of Community (COC) project, to ensure that practices developed through it continue to be followed, the University developed and implemented the following programs designed to cultivate Hiroshima Peace Initiative Leaders—people able to help build pluralistic communities: 1) a Peace Studies course titled "Introduction to Hiroshima Peace Initiative Leader Program" and 2) a Specific Program titled "Hiroshima Peace Initiative Leader Program."
After first being offered in AY 2017, the Peace Studies course "Introduction to Hiroshima Peace Initiative Leader Program" continued to be offered, and in AY 2019, it welcomed 150 students. The Specific Program "Hiroshima Peace Initiative Leader Program" was first offered in AY 2018, and in AY 2019, it welcomed 12 students from five schools. To encourage students who participated in the Specific Program to continue to take time out of their lives to remember the experiences of older generations of the Hiroshima region and think about the importance of peace, the University regularly held seminars, putting the students at the center of learning. [A peace animated film screening on November 2 at the University festival welcomed 21 visitors. On December 7, a family event titled "Remembering the Importance of Peace" was held at Shitami Welfare Hall and welcomed 42 visitors.]
In addition, despite the expiration of the Ministry of Education, Culture, Sports, Science and Technology's COC project, the University continues to provide undergraduate students with community-oriented education with help from local communities. The School of Applied Biological Science provides community-oriented liberal arts seminars and other community-oriented educational subjects to not only those affiliated with the School but also others affiliated with different schools. The School of Education offers the following programs to help students become able to help build pluralistic communities: 1) liberal art seminars that incorporate opportunities to work with people with disabilities; 2) on-campus volunteer activities designed for attached-school students in special needs programs; and 3) opportunities to work as special needs education assistants.

(5) Joint usage and research centers

Research Institute for Radiation Biology and Medicine

① The Institute's efforts and achievements (including efforts to strengthen its joint usage and research system, and also fulfill its essential role)

i) The Institute's role as a core institution [Project No. 27]
The Institute was appointed in AY 2010 as an Independent-type Research Center for Radiation

Effects and Medical Science and had served as one until AY 2015; it now comprises the Network-type Joint Usage/Research Center for Radiation Disaster Medical Science together with Nagasaki University and Fukushima Medical University. In AY 2019, the three universities conducted 206 joint usage and research projects (i.e., two projects more than last academic year) and thereby played a key role in building a base for conducting academic research into the effects of radiation and radiation medical science.

ii) The Triangle Project [Project No. 27]
To help advance academic research and thereby fulfill their role as a network-type joint research center, in AY 2017, the three universities began implementing a Triangle Project, which comprises the following themes that enable them to maximize their strengths and capacities: 1) low dose radiation effects and risks, 2) radiological emergency care, and 3) the impact of nuclear disasters on communities, and protection from radiation. The three research institutes comprising the Network-type Joint Usage/Research Center for Radiation Disaster Medical Science (i.e., the Hiroshima University Research Institute for Radiation Biology and Medicine; the Atomic Bomb Disease Institute, Nagasaki University; and Fukushima Global Medical Science Center; Fukushima Medical University) formed a joint research team and carried out 26 research projects.

iii) International symposium [Project No. 27]
In February 2020, the University hosted an international symposium on the theme of "How can we communicate possible health effects in a radiological emergency?" with help from 10 world-renowned scholars (including four international scholars) as lecturers, welcoming 137 participants, who shared their thoughts with one another on the latest trends in the field of radiation effects and radiation medical science. In addition, to help young researchers grow as academics, the symposium included a poster session to provide such researchers with an opportunity to practice giving poster presentations, and those who gave particularly outstanding ones were awarded prizes.

iv) Workshop [Project No. 27]
In February 2020, the University also hosted a unique workshop—the first of its kind at the University. The workshop comprised the following sessions and welcomed 95 participants: 1) presentations on joint usage and research projects by network-affiliated researchers from around the nation, selected through a public call and screening; 2) presentations on progress made in the Triangle Project, a cross-university collaborative project being carried out by the three universities; and 3) presentations on joint projects being carried out in collaboration with other Network-type Joint Usage/Research Centers.

v) The Fukushima Prefectural Citizens' Public Lecture University [Project No. 27]
In February 2020, under the theme of "Learning in Fukushima and Passing Lessons on to Future Generations," Fukushima Medical University held an event—in Koriyama City, Fukushima Prefecture—titled "Fukushima Prefectural Citizens' Public Lecture University," welcoming 133 participants. At the event, four lecturers spoke on topics relating to food, childcare, and mental health. In addition, the Network-type Joint Usage/Research Center for Radiation Disaster Medical Science promoted its research findings through poster presentations.

vi) Loose collaboration between network-type joint research centers [Project No. 27]
In AY 2017, the Research Center for Radiation Disaster Medical Science concluded an Agreement on Promoting Collaboration and Cooperation with the Network Joint Research Center for Materials and Devices and the Research Center for Biomedical Engineering. Subsequently, based on that agreement, the three network-type research centers promoted research exchange, giving special lectures and poster presentations at each of their progress briefing sessions, international symposiums, and workshops. In addition, the network-type research centers began conducting joint research.

② The Research Institute for Radiation Biology and Medicine's original efforts and achievements

i) Exhibition of materials [Project No. 27]
Between August 5 and September 20, 2019, the School of Medicine's Institute of History of Medicine held an exhibition of materials, titled "Hiroshima's Challenge—an Account of the Medical Efforts Made by Doctors in the Immediate Aftermath of the Atomic Bomb in an Attempt to Figure Out What Was Happening." The exhibition featured the following items and welcomed more than 800 visitors: 1) the efforts that medical scientists and doctors in Hiroshima put into diagnosing and treating atomic bomb victims in the immediate aftermath of the explosion and, 2) the subsequent efforts made by the University's School of Medicine and the Research Institute for Radiation Biology and Medicine.

ii) The Research Institute for Radiation Biology and Medicine Seminar [Project No. 27]
The Research Institute for Radiation Biology and Medicine generally held at least one monthly seminar (13 in AY 2019) with help from domestic and international researchers representing the University or another institution as lecturers, designed for anyone in general, regardless of whether they were affiliated with the University, and provided participants with opportunities to improve their research skills and interact with experts on radiation biology and medicine.

iii) Examining the effect a single ingestion of a chlorogenic acid-containing beverage with reduced oxidizing agents on our vascular endothelial functions [Project No. 27]
A joint research team led by the University examined the effects of reducing the oxidizing agents in chlorogenic acids—a type of polyphenol contained in coffee beans and known to have antioxidation and antihypertensive effects—on human adults with high blood pressure. To do so, the team asked subjects to incorporate a single intake of coffee, prepared with beans roasted in a way that reduces their oxidizing agents, into their usual meal. Consequently, a comparison of numerical values of the subjects' vascular endothelial functions, measured before and after the ingestion, indicated improved functions, suggesting that oxidizing agent-reduced coffee could help maintain healthy blood vessels.

iv) Proving the increase in chromosomal and DNA abnormalities caused by low-dose CT radiation exposure as being below the detection limit [Project No. 27]
Based on analyses of DNA damage and chromosomal abnormalities caused by exposure to low-dose CT examinations, one of the University's joint research teams discovered that the effects of low-dose CT examinations on the human body are smaller than the detection limit. The team hopes its research findings will help develop a system for ensuring safer medical radiation treatment, improve low-dose radiation CT scanners and thereby reduce cancer risks, and promote the development of technology relating to reducing the radiation dose required for radiographic examination.

v) Discovery of a molecule that facilitates the invasion and metastasis of breast cancer under hypoxic conditions [Project No. 27]
A joint research team led by the University, which has previously unveiled the mechanism behind *GLIS1* gene increase under hypoxic conditions that cause disease onset and

exacerbation, discovered that hypoxic conditions also activate cancer cells, facilitate cancer-cell migration and invasion, and promote their development of radiation resistance. According to the team, cancer cells under hypoxic conditions produce more *GLIS1*, which regulates the expression of genes, including WNT5A, a gene known to facilitate the invasion of cancer cells; thus, hypoxic conditions increase the invasion ability of cancer cells. The team hopes that its research findings will help the development of treatments for advanced breast cancer resistant to hormone therapy and molecularly targeted therapy.

Hiroshima Synchrotron Radiation Center

① The Center's efforts and achievements (including efforts to strengthen its joint usage and research system, and also fulfill its essential role)

i) Joint usage and research projects [Project No. 27]
In AY 2019, the Center accepted 130 proposals for conducting joint usage and research projects, comprising 107 general projects and 23 academically urgent ones (total proposals: 134; acceptance rate: 97%). In addition, the Center actively called for proposals for international joint research projects. Consequently, it accepted 43 proposals (33%) from overseas—a figure larger than last year—and the number of institutions affiliated with its international joint research network reached 80. Furthermore, in AY 2019, the unique total of network users reached 238, of which 77 (32%) were non-Japanese, indicating steady internationalization of the Center's education and research environment.

ii) Research findings [Project No. 27]
In 2019, the Center published 42 peer-reviewed Science Citation Index (SCI) papers, of which 15 (36%) were published in journals with a CiteScore (CS) of 8.5 or higher, including the following: Nature, Nature Physics, and Physical Review X. In addition, the Center maintained a high percentage of international co-authored papers—57% (24 papers)—and the percentage of papers published in the third-medium term in journals with CiteScores within the ranks of the top 10% was 15.3%.

iii) Seminars and international school events for doctoral program students [Project No. 27]
The Hiroshima Synchrotron Radiation (HiSOR) Center held eight seminars (of which four were by international scholars) with help from researchers, visiting the University for joint usage and research projects, as speakers in the forefront of their fields. In addition, the Center hosted an international school event for doctoral program students, as part of an academic exchange project titled the "MIRAI Project"—participated in by 8 Japanese universities, including the University, and 7 Swedish universities. The event offered lectures by experts in various fields, group work opportunities, a poster session, and other learning opportunities, which incorporated the use of the HiSOR's beamlines, and welcomed seven domestic students (including two Hiroshima University students) and 12 students from Sweden.

iv) International workshops and symposiums [Project No. 27]
The HiSOR Center held an international workshop for young researchers on new methods for incorporating new light sources and information science into one's research and the direction in which such methods are headed. In addition, to create opportunities for researchers to interact and exchange their ideas for future research projects, the HiSOR Center held the following workshops and symposiums: 1) the 24th HiSOR Symposium "Workshop on the Use of Cutting-edge Photoelectron Spectroscopy for Quantum Materials Science Research," which dealt with the latest trends and future of research incorporating the use of high-resolution angle-resolved photoelectron spectroscopy; and 2) the 25th HiSOR Symposium "The Generation of Various Quantum Beams with Compact Synchrotron Radiation Rings and Their Applications," and also the 26th Free Electron Laser (FEL) and High-Power Radiation Workshop, which dealt with the latest research trends in new accelerator technologies for producing beams and their applications for research.

v) Industry-academia collaboration [Project No. 27]
With help from offices in charge of promoting industry-academia collaboration, the Department of Public Relations set up booths at the Japan Science and Technology Agency's Innovation Japan 2019 to find prospective joint research partners in the industrial sector interested in using the University's synchrotron radiation advanced measurement technologies, research capacities, and personnel, accumulated over the years at the University's joint usage and research centers.

vi) Promoting collaboration between the University and its attached senior high schools and promoting the University's facilities [Project No. 27]
In AY 2019, the University helped five senior high schools, including super science high schools (SSH), and six junior high schools—all located in the Chugoku-Shikoku area—provide their students with training. In doing so, it welcomed 546 students and gave school tours, including campus tours. In addition, the University widely promoted its synchrotron radiation advanced research equipment to 1,034 visiting students, including 96 international students—some on the Japan Science and Technology Agency's Sakura Science Exchange Program, others on Russian summer school programs.

vii) Collaborating with Inter-University Research Institute Corporations [Project No. 27]
The University collaborated with National Institutes of Natural Sciences and other organizations in conducting research on controlling the quantum state of atoms with the time structure of synchrotron radiation and subsequently published two press releases: one in a newspaper and another on an online news site. In addition, the University's project titled the "Academic Network of Synchrotron Radiation Science Infrastructure" was adopted for the 24th Master Plan for Large Academic Research Projects (Master Plan 2020: Science Council of Japan). The project aims to improve the infrastructure of the following facilities, which promote academic research into synchrotron radiation, and build a network centered around them: 1) the Hiroshima Synchrotron Radiation Center, Hiroshima University; 2) the Photon Factory–Institute of Materials Structure Science High Energy Accelerator Research Organization, KEK; and 3) the National Institutes of Natural Sciences' Institute for Molecular Science–Ultra Violet Synchrotron Orbital Radiation (UVSOR) Facility. In AY 2019, the Directors of the preceding facilities visited each other's facility to exchange ideas on possibilities for future collaboration.

② The Hiroshima Synchrotron Radiation Center's original efforts and achievements

i) Promoting interdisciplinary research [Project No. 27]
In AY 2019, the Center developed technologies for making high throughput measurements and microscopic measurements of the circular dichroism of biomolecules. The development of such technologies helped discover ingredients that reduce the structural changes that beauty treatment-related damage could cause to hair proteins (which was featured in a newspaper); the ingredients are now used in new hair care products.

ii) Achievements in spintronics research [Project No. 27]
In AY 2019, the Center's research efforts to develop a next-generation light source led to the creation of a spin angle-resolved photoelectron spectrometer machine that emits an ultraviolet laser microbeam, enabling the selection of various micro-domains for measurement. In addition, the Center designed and built a multi-channel spin detector. Furthermore, the Center experimentally verified the existence of topological surface states on the (111) surface of the

samarium hexaboride, an internationally well-known Kondo insulator, and published the discovery in a press release.

Research Institute for Nanodevice and Bio Systems

① The Institute's efforts and achievements (including efforts to strengthen its joint usage and research system, and also fulfill its essential role)

i) Joint usage and research, human resource development, and information dissemination efforts (and achievements made by the entire network-type center) [Project No. 27]
In AY 2019, the Institute implemented 228 joint usage and research projects. To improve its international recognition, the Institute began organizing its achievements into a book in the English language and looks forward to publishing it through Pan Stanford Publishing in AY 2020.

ii) Joint usage and research projects [Project No. 27]
In November, the 4th International Symposium on Biomedical Engineering was held at Hamamatsu Act City Congress Center and lively discussions were held between participants—224 scholars from both Japan and overseas.

iii) Human resource development efforts [Project No. 27]
At the Institute's practical training session, Tokyo Medical and Dental University provided training on the use of biosensors, while the Institute did the same with CMOS integrated circuits. The session was attended by 13 young biomedical/dental engineers, comprising eight from private companies, two from universities, and three from technical colleges.

iv) Information dissemination [Project No. 27]
To widely promote the Institute's research achievements, in Vol. 3 of the Research Center for Biomedical Engineering's Newsletter, the Institute introduced its research into compact breast cancer screening devices.

② The Research Institute for Nanodevice and Biotechnology's original efforts and achievements

i) Research findings [Project No. 27]
The Research Institute for Nanodevice and Biotechnology**,** the Hiroshima University Research Institute for Radiation Biology and Medicine, and Hiroshima University Hospital jointly invented the world's first compact non-invasive breast cancer screening device, which uses weak wireless-communication radio waves, like radar, to detect symptoms. The Institute subsequently conducted a pilot clinical trial of the device at Hiroshima University Hospital, and its detection sensitivity was confirmed as 100% accurate.

ii) Expanding the Institute's international joint research network [Project No. 27]
The Institute exchanged information on research relating to the following technologies with the institutions provided below: 1) SiC power devices with the KTH Royal Institute of Technology (Sweden); 2) thin film crystal growth with Columbia University (the U.S.); and 3) thin film sensing devices with Sun Yat-sen University (China).

iii) Developing young human resources [Project No. 27]
The Institute provided senior high school students at the University's attached schools with experiment-based lessons on how to build solar cells. In addition, to help young semiconductor engineers improve their know-how, it collaborated with other institutions jointly comprising the Research Center for Biomedical Engineering in providing training on CMOS integrated circuits. Furthermore, to help young researchers advance their careers, the Institute decided to begin employing, in AY 2020, the following types of researchers as Assistant Professor trainees: 1) those affiliated with the University's research institutes and 2) graduates of the University's master's degree programs.

iv) International workshop [Project No. 27]
On March 6, 2020, the Institute invited 10 renowned scholars from universities and private companies in Japan and countries overseas—seven domestic and three international scholars—to prepare for the International Workshop on Nanodevice Technology 2020 (note: the workshop has been postponed for the time being due to the novel coronavirus).

v) Efforts made as part of the Ministry of Education, Culture, Sports, Science and Technology's Nanotechnology Platform [Project No. 27]
In AY 2019, the Institute responded to 52 requests for help (of which the outcomes of seven were kept confidential). An increase was seen in requests for help with tasks that require the use of special equipment to process ingredients and make evaluations, and the percentage of requests from private companies particularly increased, by approximately 106.5% in monetary terms.

vi) Promoting collaboration between local industries [Project No. 27]
The Institute regularly exchanges information and personnel with Micron Memory Japan, one of whose factories producing and shipping memory products internationally is located nearby the Institute. In addition, the Institute is indebted to the company for providing it with donations (e.g., in AY 2018, the Institute received $100,000 in donations from Micron Memory Japan).

vii) External funding [Project No. 27]
The external funding the Institute received in AY 2019 as Grants-in-Aid for Scientific Research, commissioned research funds, and joint research funds amounted to 99.13 million yen.

viii) Self-inspection and external assessment [Project No. 27]
To provide itself with a reference for designing research and education policies for the four-medium term plan, the Institute developed self-inspection reports for the years between its establishment and AY 2018, asked the University's subcommittees and school evaluation committees to assess them, and was subsequently provided with scores and comments. The external evaluation committee meeting that was scheduled for March 6, 2020, had to be postponed (due to the novel coronavirus).

(6) Educational communal facilities

Training and Research Vessel TOYOSHIO MARU

The University offered two shared-ship sailing courses for students of other universities, excluding those that offer programs specializing in fishery and marine sciences, and welcomed 27 participants.
In addition, it loaned TOYOSHIO MARU for chartered voyages to other universities, including Kochi University, Fukuyama University, and Kagawa University, which needed it to implement their own training programs, and the ship carried 122 passengers.
Furthermore, on 28 voyages that the University knew the ship would have vacancies, it offered to carry students, instructors, and staff of other universities and welcomed 90 passengers.
In addition, at the end of each shared-ship sailing course, the University asked students/participants and instructors to fill out a satisfaction-survey and primarily received positive comments of the following sort: 1) "The course was lots of fun"; 2) "I hope Hiroshima

University continues to offer this course next academic year and thereafter"; and 3) "I will definitely recommend this course to my underclassmen." On the other hand, some respondents pointed out that the University needs to pay more attention to the needs of female students, which helped it to recognize what improvements need to be made to provide students with an even better program.
To promote its shared-ship sailing courses, the University offers information on all voyages on its TOYOSHIO MARU website.

Setouchi Field Science Center Saijo Station (farm)

Saijo Station offered five (practical training) courses designed for students of other universities, exchange students, and working adults, which welcomed 100 participants (note: one of the practical training courses usually offered to Hiroshima University students was canceled due to a merger of graduate schools). At the end of each course, Saijo Station asked participants to fill out a satisfaction survey and received many positive comments, including the following: 1) "The course was extremely meaningful because it provided us with an opportunity to seriously consider the relationship between humans and livestock, which is something we almost never do, and thereby showed us that we all have different views on the issue."; 2) "The course showed me what a day at a farm is like and taught me the value of life"; and 3) "I used to take food for granted. But the course provided me with an opportunity to actually experience the great trouble and effort that farms undergo to provide us with food." In addition, as with last academic year, all courses offered this academic year received more participation requests than were able to be accommodated, which came in from universities in the Kansai and Kanto regions and also Thailand.
In addition to the five practical training courses mentioned above, to provide vocational school students specializing in pet animals with training on a group of animals they likely would not learn about at their own schools, Saijo Station offered one on livestock and welcomed 30 participants.
Furthermore, the Station provided people of all ages, from kindergarten students to working adults, with opportunities to experience working at a farm.
To promote its joint-usage centers' educational programs, the University offers information about them on its website.
In addition, to build more collaborative partnerships with organizations both on and off campus in order to develop an educational system that will enable it to maximize its human and material resources and thereby continue to fulfill its role as a joint-usage agricultural and livestock field center, Saijo Station applied for renewal of its status as a Joint Usage Education Center and received approval for status renewal for the years between AY 2020 and AY 2024.

Setouchi Field Science Center Takehara Station (Fisheries Research Station)

Takehara Station offered three intensive (practical training) camps primarily designed for students of other universities, welcoming 36 participants from ten domestic and international universities, including the University. All three camps were participated in by both external and internal students, and participants of all three camps were asked to fill out a satisfaction survey at the end, according to which about 80% of Hiroshima University students seemed to enjoy having participants from other universities. Participants from other universities also seemed to enjoy interacting with the University's students, with 94% of them providing positive comments, including the following: 1) "I particularly enjoyed interacting with students from other universities, because that was exactly what I felt was lacking in my daily life"; 2) "Interacting with students from other universities taught me many new things"; and 3) "I enjoyed finding out what college life at a school other than my own is like." These results prove that the intensive camps provided both internal and external students with a valuable experience.
In addition, Takehara Station actively promoted its joint-usage facilities to the following types of domestic and international organizations for the purposes provided below: 1) educational organizations for practical training and summer school programs and 2) research institutions for research projects.
Takehara Station also responded to seven requests for practical training and lectures from elementary schools and working adults in the community and thereby served as a lifelong learning center. In addition, of those seven requests, two were from overseas high schools in China and the Philippines. Subsequently, Takehara Station accepted both school's requests as part of the Japan Science and Technology Agency's Sakura Science Exchange Program, welcoming 32 students and teachers. Furthermore, in addition to the seven requests just mentioned, Takehara Station responded to facility-use requests from three universities and thereby welcomed and helped 62 students, accompanied by supervisors—included in the preceding number—to conduct fieldwork, gather and process biological data, and practice giving presentations.

Marine Biological Laboratory

After being certified as a Joint Usage Education Center, in July AY 2019, the Laboratory employed more full-time instructors to promote joint usage as follows: one Assistant Professor, employed within the University budget, and one Specially-appointed Assistant Professor, employed within the Laboratory's budget.
The Laboratory welcomed 41 participants to six intensive (practical training) camps designed for students of other universities, including the following courses that came to be newly offered this academic year after being reorganized: 1) Basic Ecology Seaside Training and 2) Evolutionary Developmental Biology Seaside Training I & II.
To help internationalize higher education, as part of the Japan Science and Technology Agency's Sakura Science Exchange Program, the Laboratory developed a one-week program and welcomed 18 people, comprising 15 students and three supervising instructors, from the following international exchange partner institutions, mostly Indonesian universities, except one—the National Chung Hsing University, a new Taiwanese partner institution: 1) Maulana Malik Ibrahim State Islamic University Malang, 2) Universitas Islam Negeri Alauddin Makassar (Alauddin Islamic State University), 3) Sunan Ampel State Islamic University Surabaya, and 4) Institut Agama Islam Negeri Tulungagung (State Islamic Institute Tulungagung). The Laboratory also helped Ryukoku University implement its three-day two-night training program, welcoming ten people, including one supervising instructor. In addition, the Laboratory was to help Shimane University implement its three-day two-night seaside training program in March; however, the program had to be canceled due to the novel coronavirus.
On the other hand, as it has been doing since AY 2010, in AY 2019, the Laboratory helped the Onomichi City Takami Elementary School implement four of its educational programs designed to help students study organisms living in the community through gathering and categorizing biological data and making bookmarkers with seaweed. In addition, as it has been doing since AY 2016, the Laboratory helped Notre Dame Seishin Gakuen's Girls' High School, located in Okayama Prefecture, provide students in its Super Science High School program with practical training. Furthermore, in preparation for providing teaching license renewal programs next academic year, the Laboratory held public lectures designed for science teachers affiliated with the University's attached junior and senior high schools.
In addition, the Laboratory actively promoted its joint-usage facilities to the following types of international organizations for the purposes provided below: 1) educational organizations for observation and 2) research facilities and aquariums for research projects.

The Laboratory also developed new practical training programs it looks forward to offering students of other universities next academic year, and then updated its website to promote them. Furthermore, to ensure efficient and effective business implementation over the next three years, the Laboratory selected external steering committee member candidates to succeed those who will be retiring next academic year and also renewed the terms of internal steering committee members.

II Hiroshima University Hospital

1. Efforts relating to cross-national university hospital evaluation criteria

(1) Efforts to improve education and research functions, including cultivating professional medical personnel and promoting high-quality clinical research (Education and research)

i) Promoting international exchange with overseas organizations [Project No. 36]

- The Epilepsy Center of Hiroshima University Hospital and the Japan International Cooperation Agency (JICA) jointly launched a grassroots technical cooperation project titled "Project for Improving Epilepsy Diagnostic Capability and Strengthening Regional Cooperation in Kathmandu and Surrounding Areas," and subsequently welcomed and provided two Nepalese doctors with training from February 4 to February 21.
- On February 11, 35 medical students visiting the University from Egypt on a short-term exchange program along with another group—together comprising 73 medical students—received practical training on how to operate the surgery support robot "Da Vinci," a tour of the Hospital, and a special lecture on the novel coronavirus.

ii) Cultivating human resources able to provide radiological emergency response [Project No. 37]

To cultivate human resources able to provide radiological emergency response and thereby fulfill its role as an Advanced Radiation Emergency Medical Support Center and Nuclear Emergency Medical Support Center, the Hospital provided 40 healthcare workers, including doctors, nurses, and radiological technologists, with training and specialized seminars.

iii) Supporting Paralympic athletes [Project No. 38]

- To support world-leading Paralympic athletes, in April, the Hospital sent two healthcare workers—a doctor and a physiotherapist—to the Paracanoe Korea-Japan Joint Camp, which was set up in Seoul, Korea; in June, it gave presentations at international society conferences.

(2) Efforts to provide high-quality medical care, expected of university hospitals (Medical care)

i) Establishing an allergy center [Project No. 35]

- In October, the Hospital set up an Allergy Center to fulfill the following roles expected of a Designated Allergy Disease Medical Care Center: 1) ensure the provision of accurate diagnosis and proper medical care particularly to patients with severe allergy symptoms through collaboration between departments and healthcare workers, 2) cultivate healthcare workers, and 3) promote collaboration with other medical institutions and stakeholders.

ii) Establishing a Hiroshima Diabetes Mellitus (DM) Station [Project No. 35]

- The Hospital set up a Hiroshima DM Station on Kasumi Campus to improve the quality of diabetic medical care through collaboration with other medical institutions to the same high standard throughout Hiroshima Prefecture. With a subsidy from Hiroshima Prefecture's Fund for Comprehensively Securing Regional Health and Long-term Care, the Hospital began providing the following services: 1) telemedicine, or medical advice on daily care with the use of IoT and ICT technologies to patients in regions that lack specialists in treating diabetes; and 2) medical care delivery, or sending medical consultants to medical institutions in need.

iii) Designated Intractable Diseases Collaborative Core Hospital [Project No. 36]

- In April, the Hospital was evaluated by Hiroshima Prefecture as having the necessary personnel and resources to provide multidisciplinary care for all types of intractable diseases and also conduct genetic testing, as well as other related tests, and was thereby selected as a designated Intractable Diseases Collaborative Core Hospital.

(3) Efforts to ensure stable and sustainable hospital operations (Management)

i) Strengthening the Hospital's Medical Safety Management Department [Project No. 35]

- To improve the quality of its medical services, provide safer medical care, and thereby strengthen its medical safety management system, the Hospital screened professors to assign to its Medical Safety Management Department, and subsequently on August 1, full-time doctors were selected and were appointed to the Department.

ii) Career continuation support for female doctors [Project Nos. 37 & 40]

- As in AY 2017 and again in AY 2018, the Hospital was selected in AY 2019 by the Ministry of Health, Labour, and Welfare as an organization to help implement its Female Doctors Support Project and thereby helped female doctors continue their careers.

iii) Efforts to improve Hospital management [Project No. 39]

- The Hospital held monthly meetings under the leadership of the Director to make the following decisions: 1) periodic replacement of medical equipment and 2) replacement, based on a condition assessment conducted in AY 2017, of old large medical equipment that requires help from various funding sources.
- With help from an inspector, the Hospital examined the accuracy of its medical bill receipts, based on its receipts for June, and also held a meeting with clinical healthcare workers and office staff involved in the process of producing medical bill receipts. Subsequently, the Hospital held a briefing to inform executive officers and all staff of the results of the inspection and meeting, and its office staff developed necessary improvement measures and coordinated collaborative efforts between offices to implement them.
- The Hospital revised the number of the following types of rooms, with the revisions coming into effect in November: 1) those for severely ill/injured patients and 2) those which incur extra charges for use. In addition, the Hospital's working group in charge of managing ultrasonic diagnostic equipment counted how many such units the Hospital owned. Subsequently, the working group considered whether the Hospital needed more or less of such equipment, and based on that consideration, formulated an equipment renewal plan and implemented it.

iv) Participation in the Regional Health Care Council of Hiroshima [Project No. 40]

- The Hospital's participation in the Regional Health Care Council of Hiroshima in AY 2019 to help ensure effective operation of regional medical systems was as follows: 24 faculty members served as officers (comprising one vice president, four permanent executive directors, 18 executive directors, and one secretary), chairs of 10 of the Council's 16 committees, and leaders of four of the committees' nine working groups.

2. Miscellaneous

Efforts to identify and resolve issues unique to one's own university hospital

- Promoting the differentiation of medical functions

  The Hospital is the only university hospital and special functioning hospital in Hiroshima Prefecture. Accordingly, it serves a key role in the Prefecture's emergency medical system as an advanced acute care hospital that provides advanced medical care for the severely ill/injured and emergency medical services for patients in need of hospitalization.

  Therefore, the Hospital limits the types of patients it accepts to those diagnosed as in need of advanced medical care or treatment only able to be provided by transcending regional medical care boundaries. Accordingly, the Hospital requires first-time patients to submit referral documents issued by their local medical institution.

  In addition, patients with minor illnesses/injuries or conditions stable enough to be referred to relevant partner medical institutions are generally done so for further treatment.

  However, this patient-acceptance policy of the Hospital was not fully understood by all clinical healthcare workers, and in some cases, patients not critically in need of its medical care had been accepted.

  Accordingly, to resolve this situation and thereby reform the work style of the Hospital staff, a proposal for promoting proper differentiation of medical functions was submitted to the Hospital's Committee in March. Subsequently, the entire staff was thoroughly reminded of the Hospital's policy on only accepting patients critically in need of the Hospital's medical care. In addition, the Hospital began developing measures to be implemented next academic year, in April, to ensure that its patients are also informed of its acceptance policy.

III Attached schools

1. Points to note

To meet the goals they set for themselves for the third medium-term plan, attached schools incorporated international perspectives into their education and research activities and teaching practice programs. For instance, they provided teachers with overseas training programs designed to help them improve their English language proficiency to levels that will enable them to communicate with people overseas and write papers and teaching plans in English. In addition, attached schools offered training on incorporating active learning approaches, and other new teaching methods, into the classroom.

2. Efforts relating to cross-attached school evaluation criteria

(1) Efforts to identify and resolve educational issues

- To become core national/regional bases for school-education research and development, attached schools took the following actions: 1) incorporated international perspectives—in ways tailored to students of all ages, from kindergarten to senior high school—into their education and research activities and teaching practice programs; and 2) applied for designation as core bases for school-education research and development.

  Subsequently, attached-school students won the following prizes in the contests provided below: 1) the bronze medal in the 14th International Geography Olympiad (iGeo), 2) bronze medal in the Asia-Pacific Informatics Olympiad 2017, and 3) bronze medals in the 58th, 59th, and 60th International Mathematical Olympiads (IMO 2017–2019).
- In addition, Hiroshima University Senior High School students were appointed to the group of 20th and 22nd High School Student Peace Ambassadors. Accordingly, they visited the United Nations Headquarters in Europe, where the U.N. Conference on Disarmament Issues was held, to call for the abolition of nuclear weapons and world peace.
- Attached schools widely promoted their research findings at an Attached-schools Joint Research Forum, at each school's education and research conference, and through forum/conference bulletins.
- Furthermore, Hiroshima University Kindergarten was designated by the Ministry of Education, Culture, Sports, Science and Technology as a UNESCO Associated School and is the only kindergarten in the Chugoku-Shikoku area to be designated as one.
- To incorporate international perspectives into their practices, attached schools provided teachers with overseas training programs and also helped them acquire new teaching methods, including active learning approaches.

  Attached schools also encouraged teachers to participate in various other internal and external training programs, including those hosted by the Hiroshima SDGs Consortium.
- In addition, attached schools and the following number of international exchange partner schools in the countries provided below conducted joint research projects, administered collaborative learning programs, and visited each other's school: 1) one in Germany, 2) one in Czech Republic, 3) two in South Korea, 4) two in Thailand, 5) one in Australia, 6) two in the United States, 7) one in China, 8) one in Indonesia, and 9) two in Singapore.

(2) Collaboration between attached schools, the University, and its undergraduate schools

① Participating in research studies

- The University and its attached schools have a set of Guidelines for Making Requests between the University and Its Attached Schools for Cooperation on Education and Research, based on which they cooperate in teaching classes and conducting research.
- In addition, attached schools maintain a partnership with the University's Graduate School of Education, and based on it, they currently help 27 former and current graduate school students improve their teaching abilities and skills. On the other hand, the Graduate School of Education is doing the same for five attached-school teachers studying as internal trainees in its Professional Development Program for Teachers and School Leaders.
- To improve their education and research activities, the University and its attached schools have a system for conducting joint research studies, titled the School-Attached School Joint Research Project, under which participants are selected annually, based on an application and screening process, from among the University's faculty and attached-school teachers.

  The Project was launched in AY 2017, and projects implemented under it have a duration of two years. Participants are required to present their research findings at society conferences, organize them into papers in English, and upload them to the Hiroshima University Institutional Repository.
- Furthermore, the University's attached schools and its Graduate School for International Development and Cooperation collaborate in the following ways: 1) jointly participate in training programs offered by the Japan International Cooperation Agency in countries overseas and 2) coordinate group discussions between the graduate school's international students and attached-school Japanese students.

② Teaching practice programs

- Attached schools helped teacher-trainee students formulate teaching plans, and in doing so, they emphasized the formulation of plans that will help the teacher-trainee students' own students acquire global competence and the ability to write plans in English.
- The University's attached schools and its Graduate School for International Development and Cooperation jointly participated in the Japan International Cooperation Agency's country-based and theme-based training programs, implemented in the following countries, where they demonstrated their teaching practices to local mathematics teachers and offered advice on how they could improve their classes: Uganda, Ghana, Zambia, Malawi, Rwanda, and South Africa.

(3) Community collaboration

To fulfill their function as teacher-training bases, attached schools welcomed teachers in prefectures and cities in western Japan on personnel-exchange and dispatch-trainee programs to provide systematic teacher training tailored to various stages of the teaching profession. Attached schools also sent teachers to local schools to participate in their teacher-training programs as lecturers, with these opportunities strengthening the attached schools' capacities for providing teacher-training programs.

In AY 2016 and AY 2017, attached-school principals held thought-sharing sessions with the Hiroshima Prefectural Council of School Superintendents on possibilities for collaborating with other public schools and local communities.

In addition, to help cultivate teachers able to serve key roles in their own schools' efforts to improve classes, in AY 2018, in accordance with a memorandum of understanding on teacher training, the University welcomed one teacher from a private school in the prefecture. Furthermore, it concluded an agreement with Hiroshima Prefecture on providing preschool teachers with long-term training and welcomed one kindergarten teacher.

In addition, to strengthen its teacher-training capacity, on March 6 in AY 2019, the University concluded a personnel exchange agreement with Tokyo Gakugei University.

Furthermore, to improve its teacher-exchange-based training system, after teachers of other public schools completed their training at the University's attached schools, returned to their own schools, and worked for at least a year, the University asked them and their supervisors to answer a survey on the training program the teachers had participated in.

Consequently, the survey showed that a large number of participants thought the programs helped them improve their skills at not only teaching subjects and guiding students but also conducting educational research, such as developing curricula. On the other hand, many participants also said they thought there were too many participants. Accordingly, to ensure information sharing between participants and attached-school teachers, the University decided to incorporate opportunities for participant-teacher communication into its programs.

In addition, the University produced booklets introducing unique efforts being made at its attached schools.

(4) Revising the roles and functions of attached schools

In accordance with the High School-University Transition Reform, in AY 2016, the University took the following actions: 1) used high school-university transition systems already being implemented at schools attached to other national universities as models in order to begin developing its own version, titled the "Connection Enrollment System" (aiming to ensure smooth transition of student details to the next school at enrollment); 2) revised its reorganization plan of attached schools; 3) considered realistic ways in which the roles and functions of its attached schools could be revised; and 4) considered possibilities for standardizing examinations that its attached schools of the same school type administer.

In AY 2017, a Working Group for Studying Possibilities for Strengthening the Functions of the University's Attached Schools was set up to study the following items: 1) what roles assigned to attached schools would lead to them helping the University strengthen its functions; 2) the size and number of attached schools that would maximize their capacities for providing teacher-training programs; 3) possibilities for strengthening the functions of each attached school; 4) possibilities for collaborating with prefectural and municipal boards of education; 5) possibilities for helping resolve educational issues in local communities; and 6) possibilities for optimizing the administration of schools, including the reform of work styles, and doing so by establishing new school types.

In AY 2018, the University specified the following policies in its interim report: 1) if attached schools want to change any aspects of their functions, they must do so in ways that will strengthen the unity between them and the University; 2) the University and its attached schools will share the goal of cultivating people able to help achieve the SDGs and Society 5.0 vision, based on the pursuit of which the size of attached schools will be adjusted as necessary; 3) attached schools will be assigned one of the following three functions, based on their location: a) cultivating teachers able to teach students the importance of respecting diversity, b) collaborating with their local community in ways that will maximize the University's advanced education and research facilities, and c) developing next-generation curricula.

In June 2019, the University held a briefing, which included a thought-sharing session, with teachers and staff of its 11 attached schools on its interim report that it had compiled in AY 2018.

In addition, over the four months between July and October, the University gave a number of briefing sessions and shared its thoughts with officers of the following types of stakeholder organizations concerned with its 11 attached schools: 1) alumni associations, 2) supporters' associations, and 3) parent-teacher associations.

Feedback from participants included questions/comments on the aims of the roles and functions that will be newly assigned to attached schools, issues that could arise, and the timing with which the revisions are scheduled to take effect.

In October 2019, to help attached schools undertake their original mission and consider more possibilities for strengthening their functions in unique ways, the University welcomed attached-school principals to the Working Group for Studying Possibilities for Strengthening the Functions of the University's Attached Schools to jointly reach a preliminary conclusion on their strategy for strengthening functions so that they could inform internal and external stakeholders of it by the end of the third medium-term plan implementation period.

III Budget (includes labor cost estimates); income and expenditure plan and funding plan

Note: Please also refer to the University's financial statements and account settlement records.

IV Short-term borrowing limit

Medium-term plan attachment	Annual plan based on the medium-term plan attachment	Actual amount borrowed
1. Short-term borrowing limit 6,222,074,000 yen 2. Possible reason for borrowing Subsidy payments for covering operating costs could be delayed and/or unexpected expenses could arise due to accidents.	1. Short-term borrowing limit 6,222,074,000 yen 2. Possible reason for borrowing Subsidy payments for covering operating costs could be delayed and/or unexpected expenses due to an accident could arise.	None

V Plans to transfer valuable assets to other entities or use any as collateral

Medium-term plan attachment	Annual plan based on the medium-term plan attachment	Assets that were actually transferred to other entities or used as collateral
1. Plans to transfer valuable assets (1) Part of the Amamizuyama housing estate (located at 4-226-101, Ushita-shinmachi Higashi Ward, Hiroshima City, Hiroshima Prefecture [117.63 m^2]) (2) The Hatsukaichi housing estate (located at 5-2585-9, Jigozen, Hatsukaichi City, Hiroshima Prefecture [332.73 m^2) (3) Part of the Kasuga housing estate (located at 5-315-1, Kasugacho, Fukuyama City, Hiroshima Prefecture [216 m^2]) 2. Plans to use valuable assets as collateral The University's land/building will be used as collateral to secure a long-term loan to cover costs incurred for maintaining Hiroshima University Hospital's facilities and equipment.	(3) Part of the Kasuga housing estate (located at 5-315-1, Kasugacho, Fukuyama City, Hiroshima Prefecture [216 m^2])	(3) Part of the Kasuga housing estate (located at 5-315-1, Kasugacho, Fukuyama City, Hiroshima Prefecture [216.62 m^2])

VI Use of surplus

Medium-term plan attachment	Annual plan based on the medium-term plan attachment	Eventual use of surplus
If any surplus is calculated at the end of any academic year, seek approval from the Minister of Education, Culture, Sports, Science and Technology for use as funds for improving the quality of the University's education and research and the operation of its organizations.	If any surplus is calculated at the end of the academic year, seek approval from the Minister of Education, Culture, Sports, Science and Technology for the use of surplus as funds for improving the quality of the University's education and research and the operation of its organizations.	The AY 2018 budget ended with a surplus of 2,804,827,781 yen; this amount is to be used in AY 2020 and thereafter to maintain education and research and clinical environments.

VII Miscellaneous: 1. Facilities and equipment

Medium-term plan attachment

Facilities/equipment	Estimated amount (million yen)	Source of funds
• (Higashi-Hiroshima) Critical infrastructure improvement (e.g., electrical equipment)	Total 923	Facility maintenance Subsidy (191)
• (Kasumi) Critical infrastructure improvement (disaster prevention equipment)		
• (Medical) Core infrastructure maintenance (disaster prevention equipment renewal)		Long-term borrowing (72)
• Small-scale renovation		(Independent Administrative Institution) National Institution for Academic Degrees and Quality Enhancement of Higher Education facility maintenance grant (660)

(Note 1) The items provided in the "Facilities/equipment" and "Estimated amount" columns are tentative. Facilities and equipment additionally deemed as needing maintenance or renovation in order for the University to achieve its medium-term goals could be added, and estimated amounts could accordingly increase.

(Note 2) Since AY 2016, the amount incurred in AY 2015 for small-scale renovations is used as a reference in calculating estimated amounts.
In addition, because detailed amounts for facility maintenance subsidies, facility maintenance grants from the National Institution for Academic Degrees and Quality Enhancement of Higher Education, and long-term borrowings fluctuate depending on the progress of projects, decisions on such amounts are made in the process of planning budgets each academic year.

Annual plan based on the medium-term plan attachment

Facilities/equipment	Estimated amount (million yen)	Source of funds
• (Higashi-Hiroshima) Comprehensive Research Building renovation (engineering)	Total 4,687	Facility maintenance Subsidy (4,615)
• (Higashi-Hiroshima, etc.) Disaster recovery		
• (Higashi-Hiroshima [attached-kindergarten]) Critical infrastructure improvement (air-conditioner)		
• (Saijo-minaga, etc.) Core infrastructure maintenance (brick wall)		
• (Higashi-Hiroshima) Library renovation		
• (Kasumi) Comprehensive Research Building renovation (dentistry)		
• (Kasumi) Critical infrastructure improvement (water supply and drainage)		
• (Higashi-Hiroshima) Critical infrastructure improvement (extra high voltage substation equipment)		
• (Kasumi) Experiment Research Building (Research Institute for Radiation Biology and Medicine)		
• (Kasumi) Library Renovation)		
• (Higashi-Hiroshima) Practical Training Building		
• Small-scale renovation		(Independent Administrative Institution) National Institution for Academic Degrees and Quality Enhancement of Higher Education facility maintenance grant (72)

Note: The amounts provided in the "Estimated amount" and "Source of funds" columns are tentative. Facilities and equipment could come to be deemed as needing maintenance or renovation and estimated amounts could thereby subsequently increase.

Actual expense

Facilities/equipment	Estimated amount (million yen)	Source of funds
• (Higashi-Hiroshima) Comprehensive Research Building renovation (engineering)	Total 3,683	Facility maintenance subsidy (3,611)
• (Higashi-Hiroshima, etc.) Disaster recovery		
• (Higashi-Hiroshima [attached-kindergarten]) Critical infrastructure improvement (air-conditioner)		
• (Saijo-minaga, etc.) Core infrastructure maintenance (brick wall)		
• (Higashi-Hiroshima) Library renovation		
• (Kasumi) Comprehensive Research Building renovation (dentistry)		
• (Kasumi) Critical infrastructure improvement (water supply and drainage)		
• (Higashi-Hiroshima) Critical infrastructure improvement (extra high voltage substation equipment)		
• (Kasumi) Experiment Research Building (Research Institute for Radiation Biology and Medicine)		
• (Kasumi) Library Renovation)		
• (Higashi-Hiroshima) Practical Training Building		
• (Higashi-Hiroshima) Disaster recovery project		
• (Higashi-Hiroshima) Lecture Building renovation (B2 & B3)		
• Internal communications network maintenance		
• Small-scale renovation		(Independent Administrative Institution) National Institution for Academic Degrees and Quality Enhancement of Higher Education facility maintenance grant (72)

○ Plan implementation status

- (Higashi-Hiroshima) Due to a change in the Comprehensive Research Building renovation (engineering) plan, the estimated and actual amounts differed by 3.171 million yen.
- (Higashi-Hiroshima, etc.) Due to a change in the disaster recovery project, the estimated and actual amounts differed by 137.889 million yen.
- (Higashi-Hiroshima [attached kindergarten]) Due to the bid-ask spread on the critical infrastructure improvement (air-conditioner) project, the estimated and actual amounts differed by 8.197 million yen.
- (Saijo-minaga, etc.) Due to the bid-ask spread on the core infrastructure maintenance (brick wall) project, the estimated and actual amounts differed by 6.15 million yen.
- (Higashi-Hiroshima) Regarding the Library renovation project, office expenses were not incurred. Accordingly, the estimated and actual amounts differed by 5,000 yen.
- (Kasumi) Regarding the Comprehensive Research Building renovation (dentistry) project, office expenses were not incurred. Accordingly, the estimated and actual amounts differed by 780,000 yen.
- (Kasumi) Regarding the critical infrastructure improvement (water supply and drainage) project, office expenses were not incurred. Accordingly, the estimated and actual amounts differed by 90,000 yen.
- (Higashi-Hiroshima) The critical infrastructure improvement (extra high voltage substation equipment) project was rescheduled for AY 2020. Accordingly, the estimated and actual amounts differed by 413.93 million yen.
- (Kasumi) The Experiment Research Building (Research Institute for Radiation Biology and Medicine) project was rescheduled for AY 2020. Accordingly, the estimated and actual amounts differed by 447.747 million yen.
- (Kasumi) Due to the bid/ask spread on the Library renovation project, the estimated and actual amounts differed by 115,000 yen.
- (Higashi-Hiroshima) Regarding the Practical Training Building project, office expenses were not incurred. Accordingly, the estimated and actual amounts differed by 1,000 yen.
- (Higashi-Hiroshima) The University received a 14.105 million yen grant for a disaster recovery project, which was unexpected at the time its annual plan was formulated, and this was incorporated into its AY 2019 budget, within which the project was funded and completed.
- (Higashi-Hiroshima) The University received a supplementary grant of 386.6 million yen for the Lecture Building renovation (B2 & B3) project, which was unexpected at the time its annual plan was formulated, and this was incorporated into its AY 2019 budget, with the entire amount being carried over to its AY 2020 budget.
- The University received a supplementary grant of 58.2 million yen for an internal communications network maintenance project, which was unexpected at the time its annual plan was formulated, and this was incorporated into its AY 2019 budget, with the entire amount being carried over to its AY 2020 budget.
- The small-scale renovation project was implemented and completed as planned.

VII Miscellaneous: 2. Human Resources

Medium-term plan attachment	Annual plan based on the medium-term plan attachment	Outcome
(1) Strategic allocation of the University's resources Centralize the management of instructor labor costs—currently managed by individual schools/offices—and do so under the leadership of the President and also by using the University's IR indicators, including the Achievement-motivated Key Performance Indicators (AKPIs)—which suggest the level of performance of faculty members as instructors and researchers—to strategically assign personnel and thereby strengthen the University's education and research capacities.	(1) Strategic allocation of the University's resources Strategically assign personnel under the President's leadership by using the University's IR indicators, including the Achievement-motivated Key Performance Indicators (AKPIs), which suggest faculty members' levels of performance as instructors and researchers, and the Basic Effort Key Performance Indicators (BKPIs).	Refer to "Strategic and Ambitious Objectives and Plans" on pp. 15 and 16. Refer to "I Business operation and financial status" on pp. 19 and 20.
(2) Attracting diverse and talented personnel ① Improve the University's chances of attracting more talented instructors from regions throughout Japan and the world to strengthen its education and research capacities, and take the following actions to do so: 1) increase the number of instructors paid under the annual-salary and cross-appointment systems by promoting the elasticity of the human resources and salary systems; and 2) increase the number of instructors who hold international citizenship, have taught or conducted research abroad, and/or are under the age of 40.	(2) Attracting diverse and talented personnel ① Improve the University's chances of attracting more talented instructors from regions throughout Japan and the world to strengthen its education and research capacities, and take the following actions to do so: 1) increase the number of instructors paid under the annual-salary and cross-appointment systems by promoting the elasticity of the human resources and salary systems; 2) strategically assign personnel, based on the Teacher Deployment Policy; and 3) increase the number of instructors who hold international citizenship, have taught or conducted research abroad, and/or are under the age of 40.	Refer to "Strategic and Ambitious Objectives and Plans" on pp. 14 and 16. Refer to "I Business operation and financial status" on pp. 20 and 21.
② Strengthen the University's capacities to support education and research activities, and to do so, implement a staff cultivation plan designed to improve human resources by employing, transferring, promoting, and training personnel, such as to increase the number of staff who hold international citizenship and/or have worked abroad.	② Improve human resources, based on a staff cultivation plan that includes the following measures: 1) employ, transfer, promote, and train personnel; 2) increase the number of staff who hold international citizenship and/or have worked abroad, and to do so, employ staff with international citizenship and provide existing staff with overseas training programs.	Refer to "Strategic and Ambitious Objectives and Plans" on p. 14. Refer to "I Business operation and financial status" on pp. 21 and 22. Refer to "(1) Points to note regarding efforts put into improving and optimizing business operations" on p. 32.
(3) Promoting gender equality ① Receive approval for the University's (third-term) General Employer Action Plan from the Ministry of Health, Labour and Welfare by the end of AY 2019, and to do so, promote a good work-life balance for faculty and staff in ways that comply with the following rules and regulations: 1) the basic policy of the Hiroshima University Gender Equality Declaration and 2) the Act on Advancement of Measures to Support Raising Next-Generation Children.	(3) Promoting gender equality ① Widely promote the University's work-life balance support systems and seminars in accordance with the (third-term) General Employer Action Plan implemented between AY 2014 and AY 2019. In addition, examine whether the support systems helped maintain a good work-life balance, and based on that examination, take any actions as necessary to maintain a workplace environment that encourages their use.	Refer to "I Business operation and financial status" on pp. 23 and 24. Refer to "(1) Points to note regarding efforts put into improving and optimizing business operations" on pp. 32 and 33.
② Actively promote female faculty and staff to decision-making positions in University management, and to do so, increase the number of female instructors and managers.	② Actively promote female faculty and staff to decision-making positions in University management, and to do so, increase the number of female instructors and managers, based on the Teacher Deployment Policy.	Refer to "Strategic and Ambitious Objectives and Plans" on p. 17. Refer to "I Business operation and financial status" on pp. 24 and 25.

○ Attachment 1 (enrollment capacity fulfillment rates by undergraduate schools/departments and graduate schools/programs)

Schools, departments, graduate schools, and programs	Capacity	Enrollees	Enrollment capacity fulfillment rate
[Undergraduate schools]	**(a)** (student)	**(b)** (student)	**(b) / (a) × 100** (%)
School of Integrated Arts and Sciences,			
Department of Integrated Arts and Sciences	500	565	113.0
Department of Integrated Global Studies	80	85	106.2
Total	580	650	112.0
School of Letters, Humanities	560	615	109.8
School of Education,			
Cluster 1 (School Education)	634	652	102.8
Cluster 2 (Science, Technology, and Society Education)	340	361	106.1
Cluster 3 (Language and Culture Education)	314	339	107.9
Cluster 4 (Lifelong Activities Education)	338	361	106.8
Cluster 5 (Fundamentals for Education and Human Development)	214	229	107.0
Total	1,840	1,942	105.5
School of Law, Department of Law,			
Daytime Course	580	622	107.2
Evening Main Course	160	177	110.6
Total	740	799	107.9
School of Economics, Department of Economics,			
Day Course	610	671	110.0
Evening Course	220	245	111.3
Total	830	916	110.3
School of Science,			
Department of Mathematics	188	206	109.5
Department of Physics	264	296	112.1
Department of Chemistry	236	269	113.9
Department of Biological Science	136	151	111.0
Department of Earth and Planetary Systems Science	96	111	115.6
Third-year school-internal transfer	20	11	55.0
Total	940	1,044	111.0
School of Medicine,			
Program of Medicine	720	738	102.5
Program of Health Sciences	480	503	104.7
Total	1,200	1,241	103.4
School of Dentistry,			
Program of Dentistry	318	329	103.4
Program of Oral Health Sciences	160	169	105.6
Total	478	498	104.1
School of Pharmaceutical Sciences,			
Program of Pharmaceutical Sciences	228	236	103.5
Program of Medicinal Sciences	88	97	110.2
Total	316	333	105.3
School of Engineering			
Cluster 1 (Mechanical Systems, Transportation, Materials and Energy)	300	312	104.0
Cluster 2 (Electrical, Electronic and System Engineering)	180	188	104.4
Cluster 3 (Applied Chemistry, Biotechnology and Chemical Engineering)	(Note 1) 460	486	105.6
Cluster 4 (Civil Engineering and Architecture)	180	193	107.2
Cluster 1 (Mechanical Systems Engineering)	(Note 2)	252	
Cluster 2 (Electrical, Electronic and Systems Engineering)	(Note 2)	303	
Cluster 4 (Civil Engineering and Architecture)	(Note 2)	285	
Third-year school-internal transfer	20	28	140.0
Total	1,140	1,207	105.8
School of Applied Biological Science, Department of Applied Biological Science	380	438	115.2
School of Informatics and Data Science, Department of Informatics and Data Science	160	172	107.5
Undergraduate school total	**9,164**	**9,855**	**107.5**
[Master's programs]			
Graduate School of Integrated Art and Science,			
Department of Integrated Arts and Sciences	110	128	116.3
Graduate School of Letters,			
Department of Humanities	128	156	121.8
Graduate School of Education,			
Program in Learning and Curriculum Development	40	72	180.0
Program in Curriculum and Instruction Sciences	160	204	127.5
Program in Teaching Japanese as a Second Language	28	36	128.5
Program in Educational Studies	28	35	125.0
Program in Psychology	38	47	123.6
Program in Higher Education	10	10	100.0
Total	304	404	132.8
Graduate School of Social Sciences,			
Department of Law and Politics	48	79	164.5
Department of Economics	56	76	135.7
Department of Management Studies	56	56	100.0
Total	160	211	131.8

Schools, departments, graduate schools, and programs	Capacity	Enrollees	Enrollment capacity fulfillment rate
	(a)	(b)	(b) / (a) × 100
	(student)	(student)	(%)
Graduate School of Science,			
Department of Mathematics	44	30	68.1
Department of Physical Science	60	66	110.0
Department of Chemistry	46	77	167.3
Department of Biological Science	(Note 2)	21	
Department of Earth and Planetary Systems Science	20	23	115.0
Department of Mathematical and Life Sciences	(Note 2)	23	
Total	170	196	115.2
Graduate School of Advanced Sciences of Matter,			
Department of Quantum Matter	50	63	126.0
Department of Molecular Biotechnology	(Note 2)	42	
Department of Semiconductor Electronics and Integration Science	30	42	140.0
Total	80	105	131.2
Graduate School of Biomedical & Health Sciences,			
Oral Health Sciences Major	(Note 2)	11	
Medicinal Sciences Major	(Note 2)	17	
Health Sciences Major	(Note 2)	41	
Medical and Dental Sciences Major	(Note 2)	13	
Total		82	
Graduate School of Engineering,			
Department of Mechanical System Engineering	56	75	133.9
Department of Mechanical Science and Engineering	60	100	166.6
Department of System Cybernetics	68	111	163.2
Department of Information Engineering	74	109	147.2
Department of Chemical Engineering	48	70	145.8
Department of Applied Chemistry	52	70	134.6
Department of Civil and Environmental Engineering	40	63	157.5
Department of Transportation and Environmental Systems	40	55	137.5
Department of Architecture	42	52	123.8
Total	480	705	146.8
Graduate School of Biosphere Sciences,			
Department of Bioresource Science	(Note 2)	30	
Department of Biofunctional Science and Technology	(Note 2)	48	
Department of Environmental Dynamics and Management	(Note 2)	12	
Total		90	
Graduate School of International Development and Cooperation,			
Department of Development Science	86	132	153.4
Department of Educational Development and Cultural and Regional Studies	56	112	200.0
Total	142	244	171.8
Graduate School of Integrated Life Sciences,			
Department of Integrated Sciences for Life	170	154	90.5
Graduate School of Biomedical and Health Sciences,			
Division of Integrated Health Sciences	76	75	98.6
Master's program total	**1,820**	**2,378**	**130.6**
[Doctoral programs]			
Graduate School of Integrated Art and Science, Department of Integrated Arts and	57	87	152.6
Graduate School of Letters,			
Department of Humanities	96	116	120.8
Graduate School of Education,			
Program in Education and Learning Science	147	237	161.2
Program in Learning and Curriculum Development	(Note 2)	7	
Program in Arts and Science Education	(Note 2)	29	
Program in Education and Human Science	(Note 2)	25	
Total	147	237	161.2
Graduate School of Social Sciences,			
Department of Law and Politics	15	16	106.6
Department of Economics	24	14	58.3
Department of Management Studies	42	45	107.1
Total	81	75	92.5
Graduate School of Science,			
Department of Mathematics	33	17	51.5
Department of Physical Science	39	33	84.6
Department of Chemistry	33	33	100.0
Department of Biological Science	(Note 2)	8	
Department of Earth and Planetary Systems Science	15	10	66.6
Department of Mathematical and Life Sciences	(Note 2)	16	
Total	120	93	77.5
Graduate School of Advanced Sciences of Matter,	36	10	27.7
Department of Quantum Matter	(Note 2)		
Department of Molecular Biotechnology		11	
Department of Semiconductor Electronics and Integration Science	21	7	33.3
Total	57	17	29.8
Graduate School of Biomedical & Health Sciences,			
Biomedical Sciences Major	(Note 2)	450	
Oral Health Sciences Major	(Note 2)	12	
Medicinal Sciences Major	(Note 2)	15	
Health Sciences Major	(Note 2)	115	
Total		592	

Schools, departments, graduate schools, and programs	Capacity	Enrollees	Enrollment capacity fulfillment rate
	(a) (student)	(b) (student)	(b) / (a) × 100 (%)
Graduate School of Engineering,			
Department of Mechanical System Engineering	27	25	92.5
Department of Mechanical Science and Engineering	30	35	116.6
Department of System Cybernetics	33	34	103.0
Department of Information Engineering	39	26	66.6
Department of Chemical Engineering	24	24	100.0
Department of Applied Chemistry	27	10	37.0
Department of Civil and Environmental Engineering	21	30	142.8
Department of Transportation and Environmental Systems	21	19	90.4
Department of Architecture	21	14	66.6
Total	243	217	89.3
Graduate School of Biosphere Sciences,			
Department of Bioresource Science	(Note 2)	28	
Department of Biofunctional Science and Technology	(Note 2)	19	
Department of Environmental Dynamics and Management	(Note 2)	13	
Total		60	
Graduate School of Biomedical Sciences,			
Programs for Biomedical Research	(Note 2)	12	
Programs for Applied Biomedicine	(Note 2)	6	
Total		18	
Graduate School of International Development and Cooperation,			
Department of Development Science	66	63	95.4
Department of Educational Development and Cultural and Regional Studies	42	50	119.0
Total	108	113	104.6
Graduate School of Integrated Life Sciences,			
Department of Integrated Sciences for Life	70	23	32.8
Graduate School of Biomedical and Health Sciences,			
Division of Biomedical Sciences	97	99	102.0
Division of Integrated Health Sciences	25	14	56.0
Total	122	113	92.6
Doctoral program total	**1,101**	**1,091**	**99.0**
[Professional degree program]			
Graduate School of Education,			
Professional Development Program for Teachers and School Leaders	40	40	100.0
Hiroshima University Law School,			
Program in Law	60	42	70.0
Professional degree program total	**100**	**82**	**82.0**

Schools, departments, graduate schools, and programs	Capacity	Enrollees	Enrollment capacity fulfillment rate
[Advanced Course]	(a)	(b)	(b) / (a) × 100
Department of Special Needs Education	30	11	36.6
Advanced Course total	**30**	**11**	**36.6**

Schools, departments, graduate schools, and programs	Capacity	Enrollees	Enrollment capacity fulfillment rate
[Attached schools]	(a) (student)	(b) (student)	(b) / (a) × 100 (%)
Hiroshima University Elementary School; number of classes: 12	384	379	98.6
Hiroshima University Elementary School, Shinonome; number of classes: 18	456	427	93.6
Hiroshima University Elementary School, Mihara; number of classes: 12	384	372	96.8
Hiroshima University Junior High School; number of classes: 9	360	372	103.3
Hiroshima University Junior High School, Shinonome; number of classes: 9	264	255	96.5
Hiroshima University Junior High School, Mihara; number of classes: 6	240	234	97.5
Hiroshima University Junior High School, Fukuyama; number of classes: 9	360	365	101.3
Hiroshima University Senior High School; number of classes: 15	600	601	100.1
Hiroshima University Senior High School, Fukuyama; number of classes: 15	600	599	99.8
Hiroshima University Kindergarten; number of classes: 3	80	75	93.7
Hiroshima University Kindergarten, Mihara; number of classes: 3	80	77	96.2
Attached school total	**3,808**	**3,756**	**98.6**

(Note 1) The names of the majors that comprise the School of Engineering's cluster 3 (i.e., Chemistry, Biotechnology and Process Engineering) were changed in AY 2018 to Applied Chemistry, Biotechnology and Chemical Engineering, respectively.

(Note 2) Departments (of both undergraduate and graduate schools) not on the list have been reorganized and are no longer accepting applications.

○ Plan implementation status

(1) Enrollment capacity fulfillment rates (as of May 1)

The enrollment capacity fulfillment rates of undergraduate schools averaged a generally satisfactory 107.5%.
The enrollment capacity fulfillment rates of master's programs averaged a generally satisfactory 130.6%.
The enrollment capacity fulfillment rates of doctoral programs averaged a generally satisfactory 99%.
The enrollment capacity fulfillment rates of professional degree programs averaged 82%—unsatisfactorily below the limit.
The enrollment capacity fulfillment rates of advanced courses averaged 36.6%—unsatisfactorily below the limit.

(2) Main reasons enrollment capacity fulfillment rates averaged below 90%

[Professional degree program] Hiroshima University Law School, Program in Law

(Reason) The number of entrance examination passers/enrollees was 11 in AY 2017, 18 in AY 2018, and 18 in AY 2019. The enrollment capacity fulfillment rate greatly improved over the past two years, reaching 90% in consecutive years. However, due to the rate recorded in AY 2017, which measured 55%, the average still remains below 90%.
The Law School's legal training program remains weak, as is evident by the fact that its bar-exam pass rate fluctuates annually—one of the causes of its weak appeal for prospective students. Other factors that caused the enrollment capacity fulfillment rate in AY 2017 to reach as low as 55% are provided in the following items ① to ③.

① The national number of law school applicants/enrollees decreased (national law school enrollees in AY 2017: -153 compared to AY 2016).
② Due to the decreased competitiveness in acceptance rates at other law schools in Tokyo, for which many of the University's law-school applicants concurrently applied, entrance examination passers withdrew from enrollment.
③ Tuition was less expensive at private schools than national schools (likely because private schools have recently begun to offer half/full deductions over multiple years).

(Response) To improve the quality of its education, in addition to setting up new scholarship programs to help students continue their studies, the Law School decided to collaborate with Kobe University's Law School. Subsequently, the University and Kobe University's law schools jointly offered a number of briefing sessions to make their efforts widely known to prospective students. Consequently, the number of applicants and examinees increased, and in both AY 2018 and AY 2019, bar-exam passers greatly increased as well.

Applicants/examinees in AY 2017: 41 applicants, 36 examinees
Applicants/examinees in AY 2018: 60 applicants, 54 examinees
Applicants/examinees in AY 2019: 84 applicants, 74 examinees

The following are details of the actions the Law Schools took, and intends to continue to take, to continue to secure enough enrollees and thereby fulfill its enrollment capacity.

① To improve the quality of its education and thereby increase its bar-exam pass rate, with help from Kobe University's Law School, the Law School introduced the following reforms to its education system: 1) an integrated education program designed to provide students with opportunities to put what they learned into practice; 2) private lessons that use the Law School's small student population to its students' advantage; and 3) seminars for reviewing previous lessons with help from young attorneys as instructors. These three educational opportunities, which are provided for three consecutive years, are designed in ways that will produce combined effects. In addition, to help its students develop a proactive attitude and thereby overcome any possible disadvantage of learning in a rural region, the Law School created a confident study atmosphere, modeled after Kobe University's Law School, and convincingly promoted the effectiveness of its own educational program to participants at briefing sessions.
② The new scholarship systems set up to help students continue their studies have particularly helped enrollees from other universities, who enrolled in AY 2017. In addition, in AY 2018, when a certified evaluation and accreditation agency visited the Law School, existing students expressed their gratitude for the scholarship systems. Furthermore, briefing-session participants who decided to apply said that the scholarship systems were the determinant.
③ To increase the chances of promoting themselves to more prospective students than usual, the Law School and Kobe University offered joint briefing sessions at multiple universities in different regions. Consequently, both schools succeeded in welcoming back briefing-session participants to entrance examinations.
④ The Law School provided entrance exam passers with study materials and lectures designed to prepare them for pursuing graduate school education at the School. In addition, it offered private lessons based on the teaching method employed at the Law School; 16 prospective students requested and received private lessons, of which 13 subsequently enrolled.

[Advanced Course] Department of Special Needs Education

(Reason) ① Municipalities currently cannot afford to allow boards of education to provide as many teachers with graduate school education as they used to. ② Because municipalities currently hire a larger number of both full-time and part-time teachers than they used to—in preparation for an impending large number of retirees—opportunities to teach are even available to first-year teachers just out of undergraduate school. ③ The self-promotion efforts of the Special Course of Special Needs Education were likely not sufficient to reach those interested in obtaining a Special Needs Education Teaching License. ④ The Special Needs Education Teaching License (for teaching the mentally handicapped, the physically handicapped, and the sick) has also become obtainable at private universities. The University's Special Course of Special Needs Education is not the only one unable to fulfill its enrollment capacity; other national universities with Special Advanced Courses also face this issue.
On the other hand, in response to the following trends, municipalities are currently trying to improve Special Needs Education, such as by giving priority to applicants with Special Needs Education Teaching Licenses in addition to other teaching licenses for particular subjects, and also by employing those who are endeavoring to obtain a Special Needs Education Teaching License, on the condition that they first obtain the license before they actually begin teaching: 1) increase in the number of children in need of special support education; 2) sharp increase in the number of special needs education classes; 3) request that special needs education providers obtain a Special Needs Education Teaching License; 4) introduction of mainstreaming into high school education, which began in AY 2018; and 5) the central government's decision to make obtaining a Special Needs Education Teaching License by the end of AY 2020 the goal of all special needs education providers.
The increasing need for teachers with a Special Needs Education Teaching License also seems to have been the reason students who enrolled in the Special Course of Special Needs Education in AY 2020 decided to pursue their studies in the University's Advanced Course. Therefore, the Special Course of Special Needs Education believes it can expect an increase in the number of applicants it welcomes in the near future.

(Response) As it did last academic year, the Special Course of Special Needs Education will continue to ask boards of education of Hiroshima Prefecture, Hiroshima City, and municipalities in the Prefecture and western Japan to encourage their teachers to endeavor to obtain Special Needs Education Teaching Licenses at the Course. The Special Course of Special Needs Education will also strengthen its self-promotion efforts in the following ways: 1) update its website and 2) produce flyers and post them on bulletin boards and circulate them both on and off campus. In addition, it will ask special support schools in Hiroshima Prefecture for help in handing out the flyers to students they welcome in nursing training programs. In AY 2019, 10 (including three existing teachers) out of a total of 11 students who graduated from the Course that year found jobs at special needs education schools and elementary schools before graduating, reflecting the trend that Special Needs Education Teaching Licensees have an advantage over those without licenses in finding teaching jobs. Therefore, the Course is confident that promoting its one-year program for helping participants obtain the Type-One Special Support Education Teaching License will raise its enrollment capacity fulfillment rate to satisfactory levels. The actions that the Special Course of Special Support Education took in attracting the students who graduated in AY 2019 were as follows: j the Course and its instructors took advantage of all opportunities they found to promote the Course's programs to boards of education of Hiroshima Prefecture and its municipalities and asked them to encourage more teachers to endeavor to obtain Special Needs Education Teaching Licenses at the Course; k the Course produced leaflets and sent them to key universities with teacher training programs in western Japan and also to all special support education schools that provide nursing training programs in Hiroshima Prefecture, and asked them to hand out the leaflets to every student they welcome, regardless of whether the student is affiliated with a university other than Hiroshima University; and l the Course's instructors gave three briefing sessions (on Higashi-Hiroshima and Higashi-Senda Campuses). Consequently, in AY 2020, the Special Course of Special Needs Education's entrance examination welcomed 26 examinees, some of whom were from Hokkaido, and 23 subsequently enrolled. The Course will continue to offer briefing sessions.
In addition, the Course learned from its students that they had learned of the Course either through its website or their upperclassmen who studied at universities other than Hiroshima University. Therefore, it will continue to put effort into updating its website and asking students for promotional help. In addition, the Course sees an increasing trend in the number of enrollees it welcomes from the University's schools. Therefore, it will continue to post flyers on campus, and in doing so, instead of only posting them on the walls along the hallways and on bulletin boards of its own building, it will ask other schools/departments to do the same in their own buildings, including their study rooms.

○ Attachment 2 (Enrollment capacities, number of enrollees, and overcapacity rates by schools and graduate schools)

(AY 2016)

Schools and graduate schools	Capacity (A)	Enrollees (B)	Breakdown of enrollees									Total on which the following is based: the calculation of whether the number of existing students exceeds the prescribed average-enrollment capacity (L) [(B) - (total of D, E, F, G, I, and K)]	Overcapacity rates (M) (L) / (A) × 100
			International students (C)	Breakdown of international students			On leave (G)	Repeat (H)	Repeat students within two years of exceedance of the regular course term (I)	Long-term enrollment (J)	Long-term enrollment students receiving deduction (K)		
				Japanese government-sponsored (D)	Foreign government-sponsored (E)	Interuniversity exchange agreement-based (F)							
(Undergraduate schools)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(%)
School of Integrated Arts and Sciences	520	584					18	28	22	2	0	544	104.6
School of Letters	580	649	5				22	28	25	5	1	601	103.6
School of Education	1,960	2,101	1				23	36	24			2,054	104.7
School of Law	760	834	4				25	42	32			777	102.2
School of Economics	880	961	6		2		30	55	45			884	100.4
School of Science	940	1,055	4	3	1		28	55	44			979	104.1
School of Medicine	1,194	1,253					15	35	33			1,205	100.9
School of Dentistry	478	501	1				13	20	15			473	98.9
School of Pharmaceutical Sciences	316	326					2	6	3			321	101.5
School of Engineering	1,980	2,230	40	16	21		24	94	91			2,078	104.9
School of Applied Biological Science	380	448					5	10	9			434	114.2
(Graduate schools)	(Student)	(Student)										(Student)	(%)
Graduate School of Integrated Arts and Sciences	180	250	78	5	4		27	27	17	26	11	186	103.3
Graduate School of Letters	224	267	109	5	4		28	30	22	25	11	197	87.9
Graduate School of Education	476	622	86	8	5		45	70	52	42	19	493	103.5
Graduate School of Social Sciences	241	229	83	2	3	1	23	37	21	30	12	167	69.2
Graduate School of Science	453	428	44	8	5		17	18	16	1	0	382	84.3
Graduate School of Advanced Sciences of Matter	218	204	19	6	4		6	8	6	0	0	182	83.4
Graduate School of Biomedical & Health Sciences	606	770	49	14	5		50	67	67	68	26	608	100.3
Graduate School of Engineering	723	823	160	39	13		30	21	18	0	0	723	100
Graduate School of Biosphere Science	245	289	51	23	14		8	19	18	6	2	224	91.4
Graduate School for International Development and Cooperation	250	281	194	33	18		13	15	12	9	4	201	80.4
Hiroshima University Law School	104	60					18	4	4	0	0	38	36.5

[Reasons enrollment capacity fulfillment rates averaged 110% or higher]

School of Applied Biological Science

The School recently saw a larger number of enrollment withdrawals than it expected. Accordingly, to accommodate the possibility of a recurrence, it passed more examinees than usual, all the while trying its best to keep within the ranges stipulated in the Ministry of Education, Culture, Sports, Science and Technology's Guidelines for Handling Cases Exceeding the Prescribed Average-enrollment Capacity Rates. However, the number of withdrawals did not reach the expected levels. Nevertheless, despite the exceedance of the prescribed capacity rate, the educational quality the School provides students has been maintained at excellent levels due to its successful efforts in maximizing the use of its facilities and equipment it owns and reorganizing its research support system.

(AY 2017)

Schools and graduate schools	Capacity (A)	Enrollees (B)	Breakdown of enrollees									Total on which the following is based: the calculation of whether the number of existing students exceeds the prescribed average-enrollment capacity (L) [(B) - (total of D, E, F, G, I, and K)]	Overcapacity rates (M) (L) / (A) × 100
			International students (C)	Breakdown of international students			On leave (G)	Repeat (H)	Repeat students within two years of exceedance of the regular course term (I)	Long-term enrollment (J)	Long-term enrollment students receiving deduction (K)		
				Japanese government-sponsored (D)	Foreign government-sponsored (E)	Interuniversity exchange agreement-based (F)							
(Undergraduate schools)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(%)
School of Integrated Arts and Sciences	520	581	1				13	26	21	2	0	547	105.1
School of Letters	580	649	7				12	29	23	7	2	612	105.5
School of Education	1,940	2,076					24	40	33			2,019	104
School of Law	760	831	2				26	41	30			775	101.9
School of Economics	880	975	6		1		25	55	42			907	103
School of Science	940	1,037	4	2	2		26	40	29			978	104
School of Medicine	1,197	1,248					19	29	24			1,205	100.6
School of Dentistry	478	500	1				11	24	21			468	97.9
School of Pharmaceutical Sciences	316	334					5	10	9			320	101.2
School of Engineering	1,980	2,204	41	16	23		28	89	87			2,050	103.5
School of Applied Biological Science	380	452					4	14	12	1	0	436	114.7
(Graduate schools)	(Student)	(Student)										(Student)	(%)
Graduate School of Integrated Arts and Sciences	180	246	73	4	5		21	31	23	25	10	183	101.6
Graduate School of Letters	224	274	128	7	4		22	30	18	26	11	212	94.6
Graduate School of Education	491	657	115	8	8		58	55	35	53	24	524	106.7
Graduate School of Social Sciences	241	226	104	3	4	1	28	32	21	35	13	156	64.7
Graduate School of Science	453	438	59	7	5		11	9	8	1	0	407	89.8
Graduate School of Advanced Sciences of Matter	218	205	24	7	8		1	8	5	0	0	184	84.4
Graduate School of Biomedical & Health Sciences	606	825	62	12	6		63	90	85	78	30	629	103.7
Graduate School of Engineering	723	933	198	48	23		32	35	30	0	0	800	110.6
Graduate School of Biosphere Science	245	274	56	26	17		11	12	9	6	2	209	85.3
Graduate School for International Development and Cooperation	250	318	230	37	31		12	18	14	13	6	218	87.2
Hiroshima University Law School	76	48	0	0	0		20	5	4	0	0	24	31.5

[Reasons enrollment capacity fulfillment rates averaged 110% or higher]

School of Applied Biological Science

The School recently saw a larger number of enrollment withdrawals than it expected. Accordingly, to accommodate the possibility of a recurrence, it passed more examinees than usual, all the while trying its best to keep within the ranges stipulated in the Ministry of Education, Culture, Sports, Science and Technology's Guidelines for Handling Cases Exceeding the Prescribed Average-enrollment Capacity Rates. However, the number of withdrawals did not reach the expected levels. Nevertheless, despite the exceedance of the prescribed capacity rate, the educational quality the School provides students has been maintained at excellent levels due to its successful efforts in maximizing the use of its facilities and equipment it owns and reorganizing its research support system.

Graduate School of Engineering

The number of enrollees in the master's program exceeds the overcapacity rate, calculated at 110%. This is because the Graduate School of Engineering put effort into securing many talented international students to help implement the following items: 1) global human resources projects, supported by Hiroshima Prefecture and companies in the Prefecture; and 2) national measures. The exceedance is also due to the Graduate School of Engineering's effort to secure enough Japanese students to fulfill its social role of cultivating talented Japanese engineers and researchers able to help promote the development of the nation's industries. Nevertheless, despite the exceedance of the prescribed capacity rate, the educational quality the School provides students has been maintained at excellent levels due to its successful efforts in maximizing the use of its facilities and equipment it owns and reorganizing its research support system.

(AY 2018)

Schools and graduate schools	Capacity (A)	Enrollees (B)	Breakdown of enrollees									Total on which the following is based: the calculation of whether the number of existing students exceeds the prescribed average-enrollment capacity (L) [(B) - (total of D, E, F, G, I, and K)]	Overcapacity rates (M) (L) / (A) × 100
			International students (C)	Breakdown of international students			On leave (G)	Repeat (H)	Repeat students within two years of exceedance of the regular course term (I)	Long-term enrollment (J)	Long-term enrollment students receiving deduction (K)		
				Japanese government-sponsored (D)	Foreign government-sponsored (E)	Interuniversity exchange agreement-based (F)							
(Undergraduate schools)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(%)
School of Integrated Arts and Sciences	550	611	10		4		14	28	24	2	0	569	103.4
School of Letters	570	642	6				17	25	16	4	1	608	106.6
School of Education	1,890	2,007					32	38	30			1,945	102.9
School of Law	750	814	1				17	28	20			777	103.6
School of Economics	855	947	4		1		31	48	35			880	102.9
School of Science	940	1,050	4	2	2		26	57	51			969	103
School of Medicine	1,200	1,250					29	26	21			1,200	100
School of Dentistry	478	503					12	27	23			468	97.9
School of Pharmaceutical Sciences	316	336					1	12	10			325	102.8
School of Engineering	1,935	2,120	37	13	21		28	78	77			1,981	102.3
School of Applied Biological Science	380	445					6	8	7	1	0	432	113.6
School of Informatics and Data Science	80	85	2		1		1					83	103.7
(Graduate schools)	(Student)	(Student)										(Student)	(%)
Graduate School of Integrated Arts and Sciences	180	220	74	4	2	1	24	21	16	23	10	163	90.5
Graduate School of Letters	224	271	138	6	8		21	26	19	23	10	207	92.4
Graduate School of Education	491	697	123	4	8		57	59	41	64	28	559	113.8
Graduate School of Social Sciences	241	258	147	4	5		21	34	25	37	14	189	78.4
Graduate School of Science	453	420	50	6	4		7	20	18	1	0	385	84.9
Graduate School of Advanced Sciences of Matter	218	203	14	5	5		3	4	4			186	85.3
Graduate School of Biomedical & Health Sciences	606	853	67	14	6		71	99	86	85	32	644	106.2
Graduate School of Engineering	723	955	220	47	33	2	23	29	24			826	114.2
Graduate School of Biosphere Science	245	252	48	25	12		6	13	12	8	3	194	79.1
Graduate School for International Development and Cooperation	250	344	255	40	30	5	12	19	15	17	7	235	94
Hiroshima University Law School	60	38					9	3	2			27	45

[Reasons enrollment capacity fulfillment rates averaged 110% or higher]

School of Applied Biological Science

The School recently saw a larger number of enrollment withdrawals than it expected. Accordingly, to accommodate the possibility of a recurrence, it passed more examinees than usual, all the while trying its best to keep within the ranges stipulated in the Ministry of Education, Culture, Sports, Science and Technology's Guidelines for Handling Cases Exceeding the Prescribed Average-enrollment Capacity Rates. However, the number of withdrawals did not reach the expected levels. Nevertheless, despite the exceedance of the prescribed capacity rate, the educational quality the School provides students has been maintained at excellent levels due to its successful efforts in maximizing the use of its facilities and equipment it owns and reorganizing its research support system.

Graduate School of Education

The Graduate School of Education welcomed many new enrollees to the following Master's Programs: 1) Program in Learning and Curriculum Development, which awards specialized teaching licenses of the following type: a) Learning Development and b) Curriculum and Instruction Development; and 2) Program in Psychology, which awards the qualification of Clinical Psychologist. The Teaching Japanese as a Second Language major and Educational Studies major of the Master's Program in Learning and Curriculum Development attracted many international applicants and thereby had competitive acceptance rates. All applicants, including senior undergraduate applicants, did well on entrance examinations. Consequently, the pass/fail screening based on the same standards as other years passed more examinees than the capacity able to be accommodated by the Master's Programs. The Doctoral Program in Education and Learning Science attracted talented applicants from all Master's Programs of the Graduate School of Education and also other graduate schools. Many existing students successfully graduated with doctoral degrees, which fact attracted many applicants and also motivated the Graduate School of Education to secure new students with the potential to develop into educational researchers able to help domestic and international higher education institutions respond to social needs. Consequently, it secured more than the capacity limits of its programs. Nevertheless, despite the exceedance of capacity limits, the educational quality, learning environments, and opportunities to receive instructions from instructors provided at the Graduate School of Education have been maintained at excellent levels for all majors comprising both Master's and Doctoral programs.

Graduate School of Engineering

The number of enrollees in the master's program exceeds the overcapacity rate, calculated at 110%. This is because the Graduate School of Engineering put effort into securing many talented international students to help implement the following items: 1) global human resources projects, supported by Hiroshima Prefecture and companies in the Prefecture; and 2) national measures. The exceedance is also due to the Graduate School of Engineering's effort to secure enough Japanese students to fulfill its social role of cultivating talented Japanese engineers and researchers able to help promote the development of the nation's industries. Nevertheless, despite the exceedance of the prescribed capacity rate, the educational quality the School provides students has been maintained at excellent levels due to its successful efforts in maximizing the use of its facilities and equipment it owns and reorganizing its research support system.

(AY 2019)

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				Japanese government-sponsored (D)	Foreign government-sponsored (E)	Interuniversity exchange agreement-based (F)							
(Undergraduate schools)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(Student)	(%)
School of Integrated Arts and Sciences	580	650	19	4			22	28	23	2	0	601	103.6
School of Letters	560	615	5				11	22	17	3	1	586	104.6
School of Education	1,840	1,942					22	40	35			1,885	102.4
School of Law	740	799	3				15	32	23			761	102.8
School of Economics	830	916	3		1		17	43	35			863	103.9
School of Science	940	1,044	2	1			35	50	46			962	102.3
School of Medicine	1,200	1,241					27	28	22			1,192	99.3
School of Dentistry	478	498					13	21	17			468	97.9
School of Pharmaceutical Sciences	316	333					2	7	5			326	103.1
School of Engineering	1,890	2,047	36	12	17		28	74	71			1,919	101.5
School of Applied Biological Science	380	438	1				6	11	10	1	0	422	111
School of Informatics and Data Science	160	172	2		1							171	106.8
(Graduate schools)	(Student)	(Student)										(Student)	(%)
Graduate School of Integrated Arts and Sciences	167	215	97	4			15	30	21	27	12	163	97.6
Graduate School of Letters	224	272	130	7	1	3	27	31	25	26	11	198	88.3
Graduate School of Education	491	742	147	7	8		45	82	60	76	34	588	119.7
Graduate School of Social Sciences	241	286	168	6	5		27	32	21	42	17	210	87.1
Graduate School of Science	383	357	48	7	4		10	18	15	1	0	321	83.8
Graduate School of Advanced Sciences of Matter	183	175	12	4	2		3	2	1			165	90.1
Graduate School of Biomedical & Health Sciences	411	667	63	15	6		93	97	71	80	30	452	109.9
Graduate School of Engineering	723	922	240	46	29	5	24	30	26			792	109.5
Graduate School of Biosphere Science	139	150	45	23	10		3	8	7	9	4	103	74.1
Graduate School for International Development and Cooperation	250	357	267	39	23	3	11	16	13	13	6	262	104.8
Graduate School of Integrated Sciences for Life	240	177	16	4						1	0	173	72
Graduate School of Biomedical and Health Sciences	198	188	18	1	2					6	2	183	92.4
Hiroshima University Law School	60	42	1				10	3	3			29	48.3

[Reasons enrollment capacity fulfillment rates averaged 110% or higher]

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