

# Report on AY2017 Operational Performance

June 2018

Hiroshima University



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## ○ Overview of Hiroshima University

### (1) Current Profile (as of the end of AY2017)

(i) Name: Hiroshima University

(ii) Location

- Headquarters: Kagamiyama, Higashi-Hiroshima City, Hiroshima Prefecture
- Campuses: Higashi Hiroshima Campus: Kagamiyama, Higashi-Hiroshima City, Hiroshima Prefecture
  - Kasumi Campus : Kasumi, Minami-ku, Hiroshima City, Hiroshima Prefecture
  - Higashi-Senda Campus : Higashi-Senda-Cho, Naka-ku, Hiroshima City, Hiroshima Prefecture

(iii) Officers

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

(iv) Schools, departments and other institutions

- Academy of Hiroshima University
  - Headquarters for Education
  - Schools: 11
    - 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
      - 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 Social Sciences
    - Graduate School of Science, Graduate School of Advanced Sciences of Matter, Graduate School of Biomedical & Health Sciences, Graduate School of Engineering, Graduate School of Biosphere Science, Graduate School for International Development and Cooperation, Hiroshima University Law School
      - Setouchi Field Science Center (Graduate School of Biosphere Science) Saijo Farming Station\*
      - Setouchi Field Science Center (Graduate School of Biosphere Science) Takehara Marine Science Station\*
  - Advanced course: 1
    - Special Course of Special Support Education
  - Attached research institute: 1
    - Research Institute for Radiation Biology and Medicine\*

○ Hospital

○ Library

○ National joint usage facility: 1  
Hiroshima Synchrotron Radiation Center\*

○ Joint usage facility for national universities in the Chugoku/Shikoku Area: 1  
Saijo Seminar House

○ Joint education and research facilities on campus: 22  
Research Institute for Nanodevice and Bio Systems\*, Research Institute for Higher Education, Information Media Center, Natural Science Center for Basic Research and Development, International Center, Center for Collaborative Research & Community Cooperation, Center for the Study of International Cooperation in Education, Health Service Center, Institute for Peace Science, 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, Center for Contemporary India Studies at Hiroshima University, Institute for Sustainable Sciences and Development, Research Center for Diversity and Inclusion, Amphibian 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

\* Facilities marked with an \* are designated by the government as joint usage, joint research or joint education centers.

(v) Students and school staff (as of May 1, 2017)

- Students: Undergraduate students 10,887 (including 71 foreign students)
  - Graduate students 4,520 (including 1,122 foreign students) (including Hiroshima University Law School and Professional Development Program for Teachers and School Leaders)
  - Advanced courses 17
  - Attached schools 3,789
- Teachers and administrative staff members:
  - Teachers 1,894 (including 216 attached schools teachers)
  - Administrative staff members 1,754

## (2) Basic Objectives of Hiroshima University

### 1 Principles

Hiroshima University (hereinafter referred to as "HU") fulfills its roles as a national university based on its founding principle "a single unified university, free and pursuing peace" and the following five guiding principles: Pursuit of Peace, Creation of New Forms of Knowledge, Nurturing of Well-Rounded Human Beings, Collaboration with Local, Regional and International Communities, and Continuous Self-Development.

### 2. Basic Policy

As a comprehensive research university located in Hiroshima, the first city in the world exposed to an atomic bomb, and an international peace and cultural city, Hiroshima University steadily carries out the Global Campus Expansion and Innovation Initiative in accordance with the "Program for Promoting the Enhancement of Research Universities" and the "Top Global University Project" (top type), both sponsored by the Ministry of Education, Culture, Sports, Science and Technology (hereinafter referred to as "MEXT"), aiming to provide education and conduct research of international-class level. Through "innovation" and "internationalization" of the university, HU pursues to become a Top 100 comprehensive research university in the world in ten years.

HU also strives to serve as a national center representing Japan and leading the world and as a regional center for the Chugoku and Shikoku Regions in Japan, by taking advantage of its unique characteristics and strengths, responding to the needs of the times and society, to realize a "University of World-wide Repute and Splendor for Years into the Future." HU is committed to training highly cultured individuals with a global outlook who will work for peace through its traditional and proven liberal arts educational programs, and at the same time, focuses on developing persons who will play active roles in international and regional societies through world-class specialized education built on top-level research activities in the world.

In the area of research activities, HU continues to focus on establishment of research centers and research environments, which have been implemented in the Second Period of the Medium-Term Plan (hereinafter, the "Second Medium-Term Period"), by utilizing support programs, such as the MEXT Program for Promoting the Enhancement of Research Universities, and pursues free and highly creative research activities to achieve top-level research results in the world. In the academic fields that HU has a great advantage, such as pedagogy, condensed matter physics, space science, creation of functional materials, semiconductors and nano-technology, and biotechnology, HU pursues advanced research activities of high quality. HU also develops research centers for radiation disaster medicine, as a university that has supported the region's restoration from calamities of the atomic bomb. It also pursues advanced research of high quality in the areas of regenerative medicine, hepatic diseases and brain science.

In the area of educational activities, HU carries out specific activities of the Hiroshima University Global Campus Expansion and Innovation Initiative developed in the Second Medium-Term Period, by utilizing support programs, such as the MEXT Top Global University Project, aiming to provide world-class education to develop educated people who can play active roles globally in solving unforeseeable problems for humankind and in pursuing peace, with their advance knowledge and abilities. To comply with the international standards for education and improve the quality of education, HU improves its educational activities through its internal education evaluation system and also receives outsider evaluations from an international consortium of universities, SERU (Student Experience in the Research University).

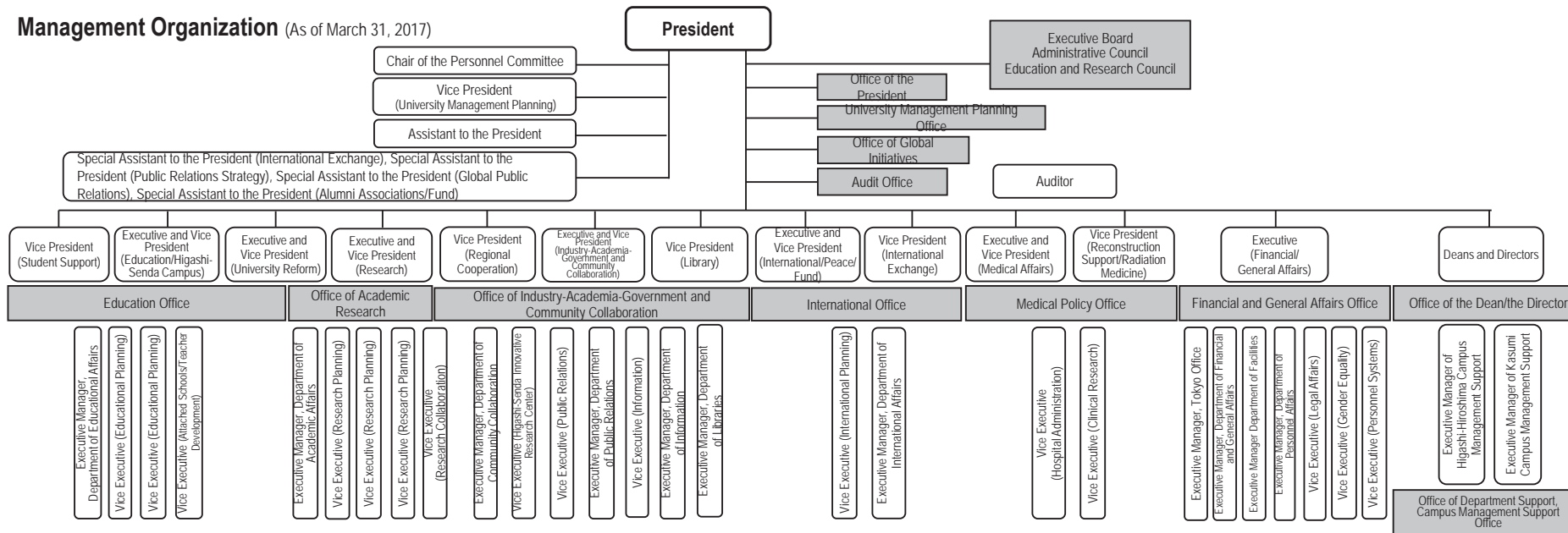
In the area of social contribution, HU focuses on activities to promote advanced collaboration with thriving industries in the region, such as transportation equipment and machinery industries, and with regional communities in Hiroshima Prefecture and neighboring prefectures. HU has worked in the Second Medium-Term Period to contribute to enhancement of the international competitiveness of the region and creation of innovation, by utilizing support from the Center of Innovation Stream programs of MEXT and the Building of Consortia for the Development of Human Resources in Science and Technology program of the Japan Science and Technology Agency. To contribute to regional vitalization and enlivenment, HU implements region-oriented education and research to develop people who can play active roles globally, responding to needs in areas having strong global orientation within Hiroshima Prefecture, by utilizing support from the MEXT Center of Community Program and the Hiroshima University Regional Contribution Program.

In the area of the operation and administration of the university, HU strengthens its management foundation under the leadership of the President, while constantly reviewing and improving its governance system, to maximize its functions in education, research and social contribution. HU monitors the performance of educational and research activities within the university by utilizing its unique achievement-motivated key performance indicators (A-KPIs<sup>®</sup>) and its IR (Institutional Research: a function to gather and analyze information on activities within a university). Based on the analysis obtained from these functions, HU conducts strategic university management, taking advantage of its strengths and characteristics.

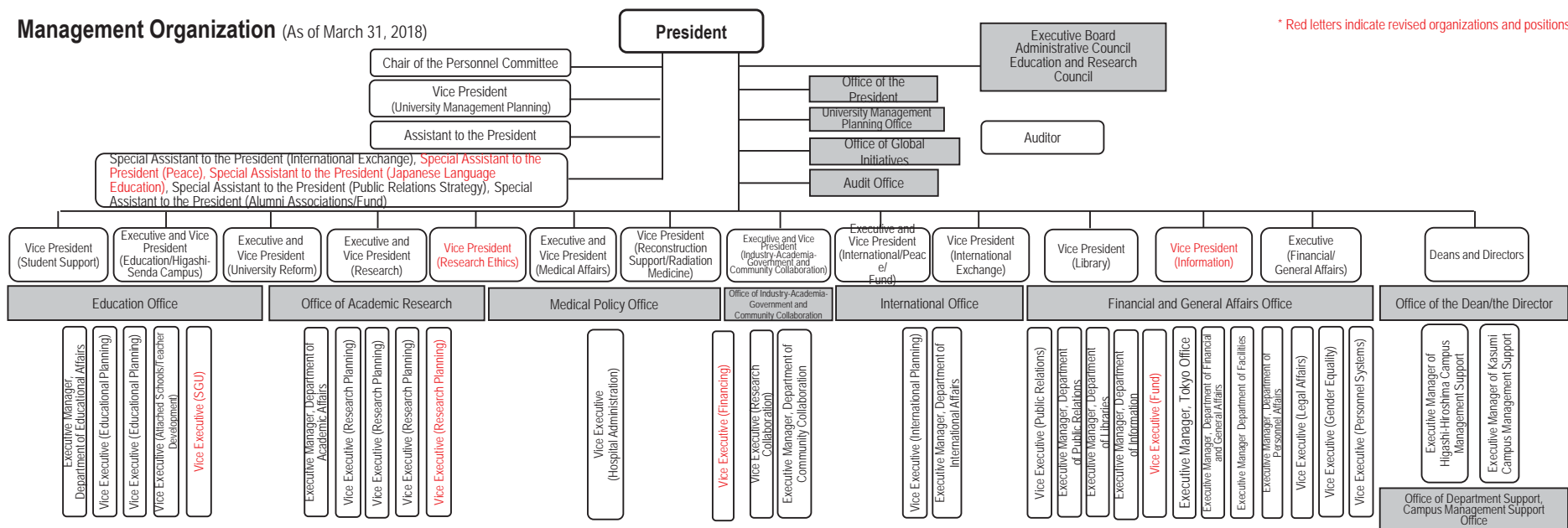
### (3) Organization of Hiroshima University

See Pages 4 and 5.

### Management Organization (As of March 31, 2017)

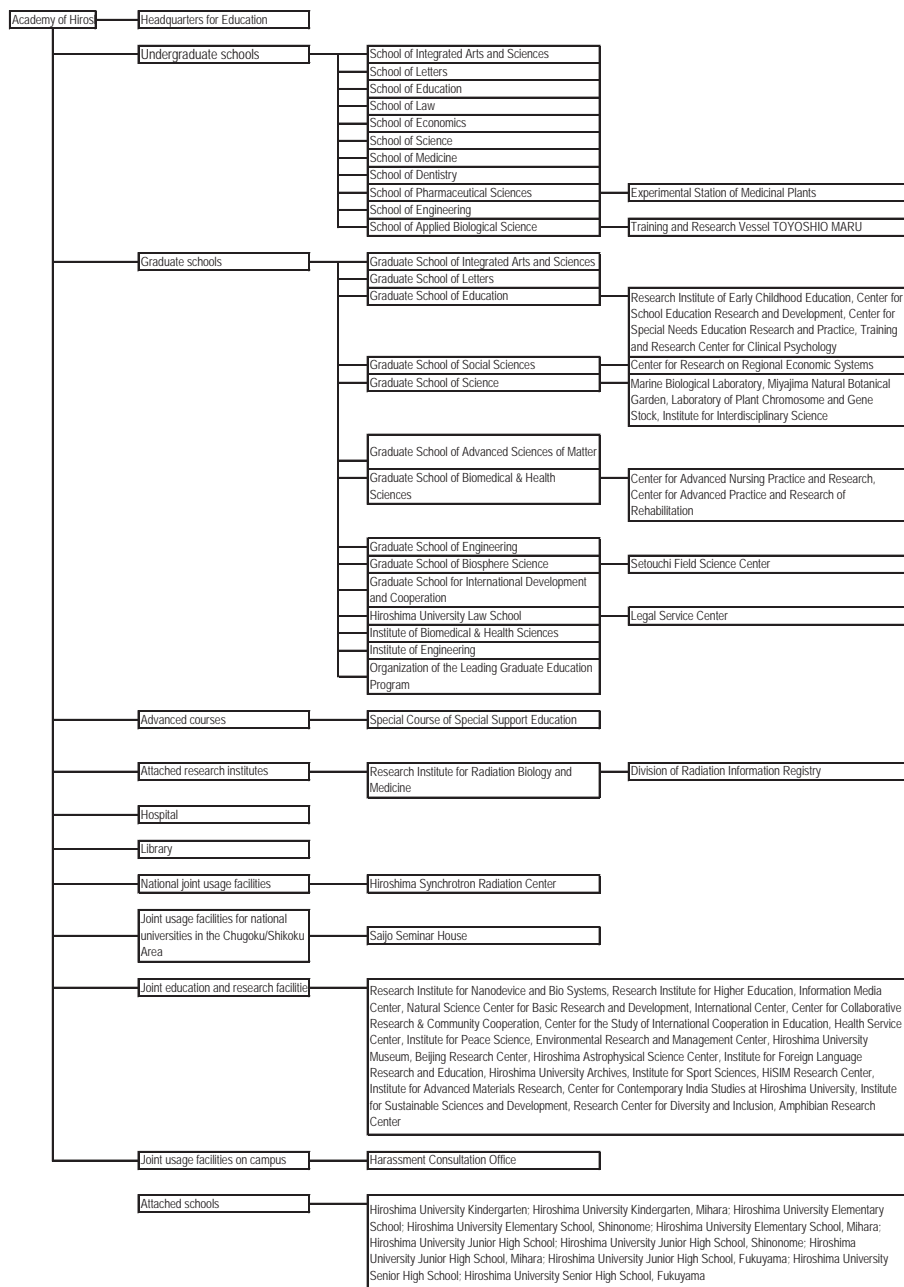


### Management Organization (As of March 31, 2018)

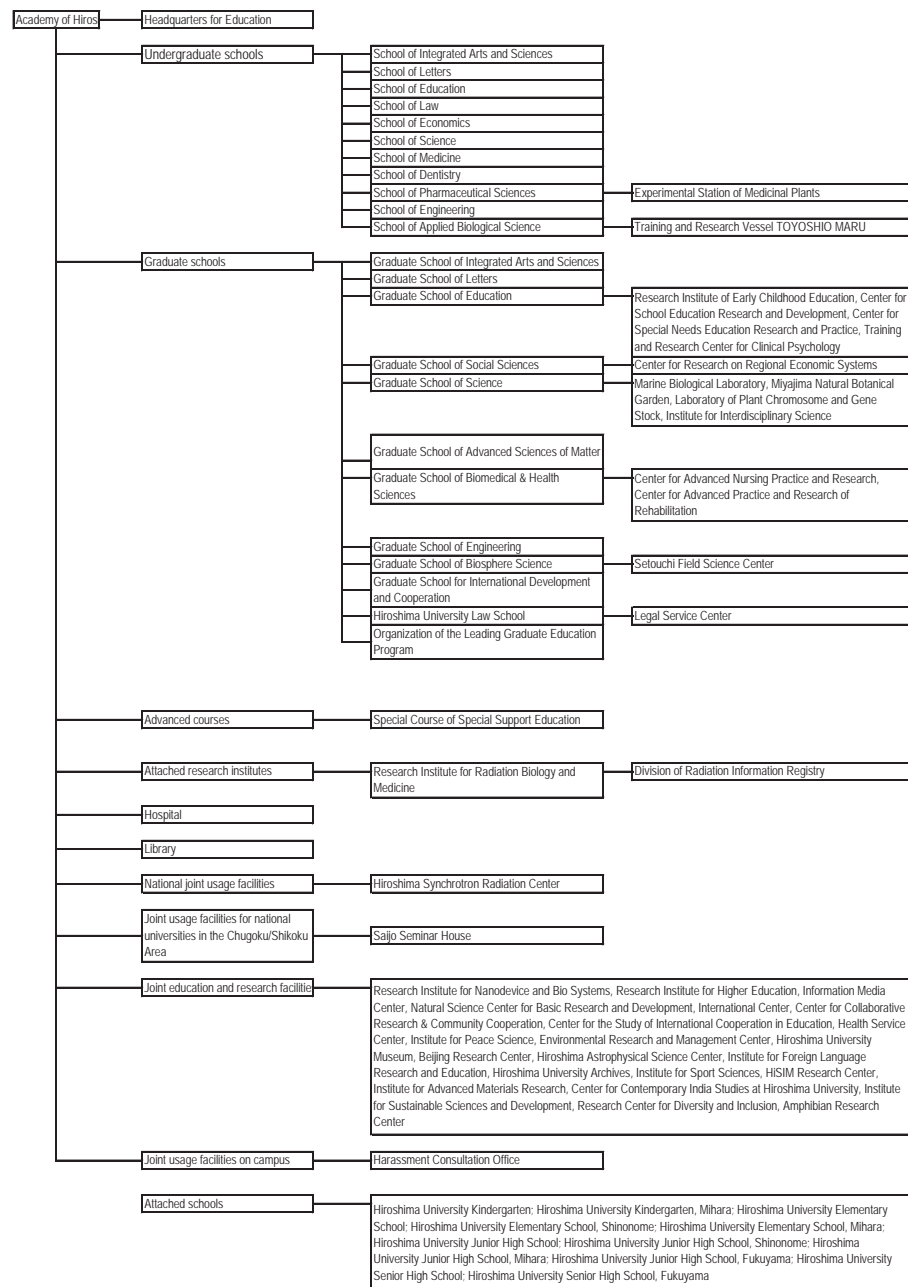


\* Red letters indicate revised organizations and positions

### Educational and Research Organizations (As of March 31, 2017)



### Educational and Research Organizations (As of March 31, 2018)



## ○ Overview

Based on its founding principle “a single unified university,” Hiroshima University conducts its education, research, medical and social activities to nurture people’s diversity and contribute to the development of a free and peaceful international society. In its Academic Year 2017 (AY2017), Hiroshima University steadily implemented activities to achieve the objectives for the Third Medium-Term Period, to realize a “University of World-wide Repute and Splendor for Years into the Future.” HU also worked on internationalization of education and enhancement of research abilities, under the Program for Promoting the Enhancement of Research Universities (RU) and the Top Global University Project (SGU) of MEXT. In April 2017, the University developed and announced the SPLENDOR PLAN 2017, a ten-year plan for achieving higher RU and SGU targets.

To effectively link activities of teachers to the enhancement of the functions of the University, a governance system was established in April 2016 under which processes from personnel deployment planning to selection of candidates are discussed by the Executive Board and finally approved by the President. Specifically, the Central Personnel Committee was formed as an organization directly supervised by the President that manages labor cost points and discusses teacher deployment. In collaboration with the Academy of Hiroshima University, a teachers’ organization operating independently from education and research organizations, the Central Personnel Committee implements

strategic and systematic personnel allocation from a holistic viewpoint for the entire university beyond the borders of educational and research organizations, by using the University’s unique achievement-motivated key performance indicators(AKPI®), Basic Effort Key Performance Indicators (BKPI®) and other criteria for monitoring the academic performance of teachers. Through these activities, the University actively hired foreign teachers, female teachers, annual compensation-based teachers and young teachers. These efforts also led to establishment of new graduate schools in AY2018: School of Informatics and Data Science; and School of Integrated Arts and Sciences, and Integrated Global Studies.

As explained above, Hiroshima University conducts unique personnel management by establishing a single unified teachers’ organization and the Central Personnel Committee that centrally conducts strategic management of personnel affairs of all teachers, by using AKPI® and other criteria as references.

### 1. Improvement in the quality of education, research and other academic activities

#### (1) Status of educational programs

##### (i) Activities to develop globally competent human resources

- i) Verification of the numbering of courses and the presentation method of syllabuses, and establishment of access to syllabuses for foreign viewers [Project No. 1]  
Please refer to “Actions for Strategic and Ambitious Objectives and Plans” on p. 23.

- ii) Development of English proficiency of students [Project Nos. 2, 3, 7 and 8]  
Please refer to “Actions for Strategic and Ambitious Objectives and Plans” on pp. 23, 24 and 25.

- iii) Addition of subjects taught in foreign languages [Project No. 32]  
Please refer to “Actions for Strategic and Ambitious Objectives and Plans” on p. 31.

##### iv) Reform of liberal arts education [Project No. 4]

The University has provided liberal arts education to students in accordance with its Framework of Liberal Arts Education Reform established in AY2010. From AY2018, considering the environmental changes for the University and problems identified so far, reform of liberal arts education started. The purposes of liberal arts education are

- (1) to broaden and deepen students’ cultural knowledge and develop the abilities to make judgments from a wider perspective, and to cultivate and enrich their personality;
- (2) to develop abilities to proactively learn and think, identify problems and find solutions; and
- (3) to develop abilities to play important roles in and outside Japan based on global visions.

Major reform activities are as follows:

- 1) Establish the General Education Control Department in the Headquarters for Education, and form the Controlling Council and the Planning and Management Council under this Department. The Controlling Council examines and discusses common matters related to education within the University. In accordance with the policy established by the Controlling Council, the Planning and Management Council creates and implements teaching subjects common to all students within the University. Within the Planning and Management Council, 21 sections have been formed. Under the leadership of the section chief, each section implements common educational programs for all students within the University in cooperation with the relevant unit of the Academy of Hiroshima University.
- 2) By making the best use of the units in the Academy of Hiroshima University established in April 2016, all teachers are assigned to teach appropriate liberal arts subjects.
- 3) To ensure that students understand the meaning and purpose of studying at Hiroshima University, the new requisite subject “Introduction to University Education” should be created with an aim to provide the basic skills and attitude necessary for learning at the University.
- 4) Aiming to promote acquiring knowledge in various academic fields beyond the boundaries of specialties, the University will reorganize liberal arts subjects into the disciplines of the Humanities and Social Science group and the Natural Science group. All undergraduate students must acquire at least 4 credits from both courses (humanities-sciences cross study).

- v) Provide the liberal arts subject “Spread Your Wings in the World with the Strength of Education” [Project No. 4]

As a part of liberal arts education, the University created and provided the lecture program “Spread Your Wings in the World with the Strength of Education” to new undergraduate students, by inviting leaders from sports, art, science and business fields as lecturers. Twelve sessions of lectures were given under this program in April and May 2017 with the participation of a total of 2,115 students (including students in the second and later years). After each lecture, a questionnaire survey was conducted of attending

students. To the question “Was the lecture interesting to you?” more than 75% of respondents replied (1) Very interesting or (2) Interesting. To the question “Was the lecture useful for you to broaden your way of thinking or social vision?” 85% of respondents replied (1) Very useful or (2) Useful. The student satisfaction level was very high. Starting in AY2018, to further encourage new students to take this program, the purpose of these lectures, “To understand the significance of learning at the University and cultivate motivation”, was clarified and lectures are provided in two out of 16 sessions of the “Introduction to University Education” program, a new requisite subject for all first-year undergraduate students.

vi) Proposals to improve the English proficiency of students [Project Nos. 2, 3, and 32]

To consider specific strategies for improving the English proficiency of all students at the University, the General Education Control Department of the Headquarters for Education has formed the Central English Education Review Working Group (WG). The WG discussed and compiled the following six proposals:

- 1) Increase the number of students taking TOEIC® L&R IP tests (2,525 students in AY2017 → to be increased to 4,300 in AY2018)
- 2) In the liberal arts curriculum, “Communication III” for the second-year students should be discontinued, and “Communication I and II” for the first-year students should be expanded. In addition, a basic academic writing subject should be newly created.
- 3) Based on the results of the TOEIC test taken by new students immediately after enrollment at the University, the target TOIEC score for each student to be achieved in each semi-annual period should be determined and presented to each student. All students should strive to achieve their target scores. To encourage students to set their own goal, a Can-Do List should be created that associates TOIEC® scores with the descriptions of corresponding English proficiency levels (for example, TOEIC Score 500-595 with the description “is able to listen to opinions of two persons and understand the important points and different points.”) For students in the second and later years, English language programs to develop their English proficiency in specialized fields should be reinforced.
- 4) Use teaching materials written in English in all teaching subjects whenever it is practicable.
- 5) Create English-Only areas on campus to promote the globalization of the campus.
- 6) To encourage and support study abroad of students, the student quota should be increased for the START+ Program for the second- and later-year students (an advanced version of the “START” short stay-abroad program for first-year students with little overseas experience) designed to focus more on enhancement of English abilities of students.

These proposals were approved at the meeting of the Education Promotion Organization on January 16, 2018. The University will work in unity on these initiatives in accordance with the policies of these proposals.

vii) Implementation of the Joint Graduate School Program between Capital Normal University (China) and Hiroshima University [Project No. 6]

In AY2015, Hiroshima University established the “Joint Graduate School Program of Capital Normal University and Hiroshima University” with Capital Normal University in Beijing, China, where Hiroshima University operates its Beijing Research Center. For this double-degree master’s program, solicitation of students and matching were

implemented. In AY2018, six students are scheduled to enroll (compared with seven in AY2016, and nine in AY2017).

The seven students who enrolled in AY2016 as the first members of the program completed the double-degree master’s program as of the end of AY2017, and two out of these seven students will proceed to the doctoral course of the University in April or October in AY2018. This has proven that the Joint Graduate School Program achieved the objective to increase the enrollment of outstanding students in the doctoral courses.

viii) Promotion of conclusion of department-level double-degree program agreements

[Project No. 6]

As a part of the Super Global University Project (SGU) of MEXT, to promote double-degree programs with departments of other Universities, from AY2015, the University has provided financial support to departments that considered concluding double-degree program agreements with departments of other universities, by providing travel expenses for visits to candidate universities and other related expenses. In AY2017, the University provided this financial support to eight projects of six departments. As a result of this expense support for three years, the number of departments that implemented double-degree programs and the number of agreements have dramatically increased (10 programs in three graduate courses in AY2015 → 25 programs in seven graduate courses in AY2017).

(ii) Activities to improve the quality of education

i) Improvement in the self-check/evaluation system to improve the quality of education

[Project No. 12]

Please refer to “Actions for Strategic and Ambitious Objectives and Plan” on pp. 25 and 26.

ii) Use of SERU’s international evaluation of the educational quality assurance systems

[Project No. 12]

Please refer to “Actions for Strategic and Ambitious Objectives and Plan” on pp. 25 and 26.

iii) Enhancement of the three-tier TA system [Project No. 13]

In AY2016, HU introduced the new training assistant (TA) system “HIRODAI TA.” The HIRODAI TA is structured with three layers of TAs depending on the quality and competence required for activities: Phoenix Teaching Assistant (PTA), Qualified Teaching Assistant (QTA) and Teaching Fellow (TF). PTAs perform only auxiliary jobs relating to lessons. QTAs provide supplementary teaching during lessons, such as facilitation of discussions and demonstration of experiments, in addition to the assistance provided by PTAs. TFs teach students under the supervision of teachers, in addition to the types of assistance provided by PTAs and QTAs. In AY2017, to further enhance this system, the TA Support Desk conducted the activities described in “Implementation of diverse TA training activities” below. Through these training activities and work experience as a TA, graduate school students are given opportunities to acquire abilities to overview knowledge of their specialized fields, deepen their understanding about education and learn methods to provide learning assistance. The TA system helps graduate school students to become independent educators and to improve the content and quality of education at the same time.

• **Diverse TA training activities:** In addition to training for students to acquire the TA qualifications, open seminars for teachers and administrative employees who work with TAs were also carried out. As for training for students to acquire the TA qualifications, six sessions of the “QTA Qualification Training” were carried out, with 1,231 participants in total, including 154 foreign students. To acquire TF qualifications, the curriculum



subject "University Teacher Training" was implemented (a common subject for graduates, 2 credits) with 26 students (including 6 foreign students). As for teachers, TA training sessions of the FD Training Program (Practice Course) were carried out, with 17 participants. The University also offered a TF program designed for students who are employed as TFs. The program provided training to create teaching portfolios (with participation of 4 students). As for open seminars, the "Create Meaningful Learning Experience Series (three lecture sessions, 78 participants) and "Work with TAs Series" (two workshop sessions, 17 participants) were carried out, inviting experts from within and outside Japan as lecturers.

- **International forums and results presentation:** A report on the background and the current status of the three-tier TA system was published as project results in "Higher Education Research Series 137" issued by the Research Institute for Higher Education of Hiroshima University. The following seminars and study meetings were also conducted: the Hirodai TA Open Seminar (five sessions, 109 participants in total), inviting experts from inside and outside Japan as lecturers; the international forum "Reform in Teaching Assistant (TA) System in Universities - For Enhancement of Education in Undergraduate and Graduate Schools", inviting experts from the United States (71 participants); and a study meeting in Tokyo (11 participants). In the International Forum, 18 projects participated in the poster session from around Japan. Posters presented by Hiroshima University were the following: two posters for TF results, two posters for QTA results and one poster for specific activities of QTAs. Results of the international forum and other activities will be compiled into a report and published as a part of the Higher Education Research Series in AY2018.
- **TA's participation in operating organizations:** Beside the two dedicated support desk staff members and five members of the Hirodai TA System Operation Committee, a TA team comprising one TF and several QTAs and PTAs has participated in the planning and operation of the above-mentioned activities since AY2017. In addition, "Lead the Discussion," a breakout session of the QTA Qualification Training, was planned and conducted by two TFs.
- **Results:** In AY2017, teachers in charge of classes evaluated the performance of QTAs regarding (1) Completeness of the preparation, (2) Appropriateness of information taught to students, (3) Attitude toward students and (4) Understanding of students, in a five-level evaluation and reported the results in the QTA Performance Report. As a result of the analysis of the data for 2,088 TAs, although there were some variances between evaluation items, more than 65% of TAs were evaluated as "Excellent." Adding the TAs evaluated as "Very Good," 97.0% of TAs received high evaluation.

iv) Development and use of Japanese version of the BEVI test [Project No. 30]

Please refer to "Actions for Strategic and Ambitious Objectives and Plans" on pp. 28, 29 and 30.

### (iii) Support provided to students

i) Provision of a pre-enrollment scholarship program [Project No. 14]

Please refer to "Actions for Strategic and Ambitious Objectives and Plan" on p. 26.

ii) Verification of the occupancy of the university-leased mixed-boarding student houses [Project No. 34]

Please refer to "Actions for Strategic and Ambitious Objectives and Plans" on pp. 31 and 32.

iii) Tutor system [Project No. 15]

Starting from new students who enrolled in AY2017, to strengthen the support provided to students, more than one teacher was assigned to each student as tutors in all schools. By this assignment of more than one tutor, if any student's problem could not be handled only by one tutor, other assigned tutors can be involved in solving the problem. It has also become easier for students to obtain second opinions.

The University has conducted student campus life surveys in AY2017, 2014 and 2012. Comparing the responses to questions about the effectiveness of the assignment of more than one tutor, the percentage of first-year students who actually consulted tutors was higher in the AY2017 survey than the past two surveys. These results proved that the full-scale adoption of this system has made it easier for students to seek advice from tutors.

[Percentage of students who consulted tutors: 21.18% (AY2017), 14.96% (AY2014), 18.58% (AY2012)]

iv) Enhancement of accessibility education [Project No. 16]

The University established and implemented "ubiquitous support" programs, by utilizing ICT and cloud technologies and IoT (Internet of Things), and expanding the accessibility education program for teachers and administrative staff members, to realize accessibility to support "anytime" and "anywhere." In addition, the 12th Accessibility Leader (AL) Development Program was implemented as follows:

- The certification examination for 12th Accessibility Leaders was conducted in December 2017.
- Nineteen persons received certification as Accessibility Leaders (Nine Grade 1 leaders and ten Grade 2 leaders).
- A total of 715 persons (students, teachers and administrative employees) participated in the AL Development Program.
- Distribution of Online Accessibility Study Course 2016 (Distributed until July 2017: A total of 25 participants). The AY2017 version has been created and distributed from August 2017 (331 participants so far)
- A program comprising 4 practice subjects + 3 exercise subjects + 1 lecture subject was implemented, with 130 participants
- A program comprising 7 training sessions (2 basic sign language training sessions + 2 sign language training sessions + 2 summary writing training sessions + 1 accessibility session) was implemented, with 56 participants.
- The policy for adoption of remote support/ubiquitous support (October 2017) and the Minimum Standards (March 2018) were established.
- The Support Technical Guide was created, including the contents that were introduced in AY2017. It was published on the Accessibility Center website (March 2018).
- The online learning program "Online Accessibility Support Practice for Teachers and Administrative Employees" (Bb9) was created and distributed, and includes the Minimum Standards (March 2018).

v) Expansion of career support [Project No. 15]

To support job hunting of students, the following career support activities were provided mainly led by the Global Career Design Center:

- To develop a sense of being a member of society, which is necessary for all students, and to develop them into sophisticated persons, the liberal arts subject "Career Education Course" (in the third term) was offered, taught by 12 guest lecturers who had work experience at enterprises and other businesses. Ninety students took this program. "Modern Issues in Kasumigaseki," a subject designed to deepen students' understanding of the career track of national public officers and problems the national government organizations are currently experiencing, was offered by inviting senior managerial officers from the Central Government as lecturers (a specialized subject of the School of Law, open to students from all departments). A total of 509 students took this subject. The responses to the questionnaire survey conducted with participants indicated that the satisfaction level was very high for both subjects (4.2 points for the Career Education Course and 4.6 points for Modern Issues in Kasumigaseki, compared with an average of 4.1 points out of a total of 5 points). In addition, as a program to understand the businesses and jobs in the real world and help students to think about campus life and their own future career, a new course, "Career Design Course," will be offered in AY2018. Alumni of the University who have abundant experience in local companies will be invited to talk about real episodes in the business forefront. In AY2017, preparations for starting this course were implemented.
- As a part of activities to strengthen collaboration between national universities in the Chugoku/Shikoku Region, a joint job offer meeting (with 1,245 participants, including 388 HU students) was conducted in March at Hiroshima University. Concurrently, a career support consultation meeting with teachers and related parties from universities in the Region was also conducted for national university students in the Region. This event started in AY2014 as the first joint job offer meeting in Japan for students of nine national universities in the Chugoku/Shikoku Region. It has been carried out every year, co-hosted by Hiroshima University and Okayama University.
- The University cooperated in conducting the first meeting of the "Industry Study Seminar by HU Alumni" hosted by Senda Juku (an alumni association of Hiroshima University) (with 100 participants). It was a valuable opportunity for students to listen to alumni about their jobs and industries in detail.
- Hiroshima University, Yamaguchi University and Tokushima University collaborated to form an industry-academia-government consortium. It was a part of the "Home for Innovative Researchers and Academic Knowledge Users (HIRAKU)" project [one of the "Development of Next Generation Researcher" programs under the Building of Consortia for the Development of Human Resources in Science and Technology project (the Ministry of Education, Culture, Sports, Science and Technology)]. The purpose of the consortium is to develop and retain young excellent researchers (students in doctoral courses, post-doctors, and tenure track researchers). The consortium, comprising mainly national and private universities, companies and public organizations in the Chugoku/Shikoku Region, developed systems that promote mobility of human resources and diverse career paths and established environments where researchers can independently conduct and concentrate on research activities, including the leveraging of HIRAKU-PF (a portfolio of young researchers) and long-term dispatch of interns to companies. Under this project, 14 researchers were dispatched to Tosoh Corporation, the National Institute of Advanced Industrial Science and Technology, Mazda Motor Corporation, Mishima Foods Co., Ltd. and other companies.

- International internship programs (such as G.ecbo Program) were implemented (with 37 participants), aiming to develop researchers and professionals who can play active roles in the international community. The G.ecbo program has proven to contribute to the development of highly specialized professionals. In addition to academic achievements in the research subjects they had planned before the dispatch, the dispatched students acquired valuable experience. Some students reported that their approach to research activities and way of thinking have positively changed and some reported that they were inspired regarding formation of their future careers.
- As a pilot internship project for first-year students, the liberal arts subject "Social Action Project through Service-Learning" program was implemented. In this program, ten students were dispatched to companies or social organizations as interns or volunteers. In the result report meeting for this project, students reported their experiences in the internship or volunteer activities to the teacher in charge of the subject and staff members of the Global Career Design Center. The program provided good opportunities to students to think about their future career design. Individual departments and graduate courses also provided career support to students to meet the specific needs of students in their departments/courses, in collaboration with the Global Career Design Center.
- The Global Career Design Center provided general job-hunting guidance and seminars, and career and job-hunting consultation for all students of the University. In addition to these support activities, individual departments and graduate courses also implemented their own support activities, such as job-hunting guidance/seminars for students in their departments/courses. The Graduate School for International Development and Cooperation provided three sessions of the "International Cooperation Career Seminar," for students who desire to work in international organizations, by inviting business persons who work in the forefront of international cooperation as lecturers. The Graduate School of Advanced Study of Matter provided eight sessions of the "Lecture on Social Exchange Projects Through Alumni." The School of Pharmaceutical Sciences provided one session of the "Hiroshima University School of Pharmaceutical Sciences Career Education Seminar." The School of Letters and the Graduate School of Letters provided 14 sessions of "Job-Hunting and Path to Become Social Members." The School of Letters, the Graduate Schools of Letters, the School of Education and the Graduate School of Education posted counselors who provided individual consultation to students in their departments.

(iv) Improvement in the method to screen enrollment applicants

- i) Utilization of scores of third parties' English proficiency tests in undergraduate school admission screening [Project No. 18]  
Please refer to "Actions for Strategic and Ambitious Objectives and Plans" on pp. 26 and 27.
- ii) Use of an online application system for graduate school admission examinations, equipped with English interface and an upload function [Project No. 19]  
Please refer to "Actions for Strategic and Ambitious Objectives and Plan" on p. 27.
- iii) Utilization of scores of third parties' English proficiency tests in graduate school admission screening [Project No. 20]  
To actively admit globally competent students, third parties' English qualification/proficiency tests that measure 4 English skills were utilized in the admission screening of applicants in nine undergraduate courses (out of 11 courses in total) and two leading programs of doctoral courses.

When a person applies to a graduate school in a foreign country, he/she is often required to submit scores of Graduate Record Examinations (GRE) that measure the academic achievement level of a person. In the middle of August, the University was authorized by the Educational Testing Service (ETS) to utilize these scores in its admission screening.

It was explained in the application guidebook of the University that applicants to the Graduate School of Integrated Arts and Sciences, the Graduate School of Letters, the Graduate School of Social Sciences (Management Studies), the Graduate School of Science, the Graduate School of Biosphere Science, and the "Taoyaka Program for Creating a Flexible, Enduring, Peaceful Society" (five graduate schools and one program) are required to submit a certificate of their GRE score.

- iv) Establishment of a seamless system to complete the processes from application to enrollment [Project Nos. 17, 18, 19, and 20]

The development of the online application system, with Japanese and English language interfaces, equipped with an application form upload function, was completed by AY2016. It was used in some departments on a trial basis in AY2017. From the admission screening for AY2019, which will be carried out in AY2018, this system will be used in all undergraduate schools and some graduate schools. Some of the benefits of this online application system for applicants are as follows: 1) The processes from application to enrollment can be completed smoothly, 2) The enrollment fees may be paid by credit card (only for payment from overseas), at the counter of convenience stores, and by other various payment methods, and 3) The volume of paper documents sent by postal mail can be reduced. Schools can also increase the efficiency of their administration processes because the volume of postal mail and paper documents to be processed can be reduced, the receipt of payment can be checked easily, and the progress of the process can be confirmed.

## (2) Status of research activities

### (i) Development of global research centers

- i) Continuous creation and development of diverse research centers [Project No. 21]

Since AY2013 HU has established and operated a system to develop global research centers on its campus as core research centers of HU that continuously create diverse research subjects, from basic research to creation of innovation. The purpose of this system is to promote collaboration and combination between different fields and promote cross-disciplinary research activities through selection and evaluation. This system invites researchers within the University to make proposals to create incubation research centers that can perform world top-level research activities with clear objectives. Intensive support is provided to selected proposals to assist them in developing into self-sustained research centers having outstanding research achievements that can conduct research activities independently with externally procured funds.

In AY2017, proposals for one self-sustained research center and four additional incubation research centers were selected. In the beginning of AY2017, an interim evaluation of the first three independent research centers was conducted. In addition, for the seven incubation centers formed in the first stage of the project, the Council of the Organization for Research Promotion, comprising the President as the chairman, deans and directors and other members, conducted a final and precise evaluation, including interviews with researchers. As a result of this evaluation, three out of these seven incubation centers were elevated to self-sustained research centers (including one that was escalated in AY 2016, earlier than projected). It was determined to continue to provide support to two and discontinue support to the remaining two centers. Consequently, the University currently

has 10 self-sustained research centers and 16 incubation research centers. Maximizing its characteristics as a comprehensive research university, HU has continuously created and developed diverse research centers in the field of humanities and sociology, medicine, science, engineering and agriculture. To develop them into active world research centers, HU intensively and strategically allocates resources to these research centers, such as allocating the support amount based on the indirect expenses borne by the center or allocating the support amount in proportion to the score of the interim evaluation of individual incubation centers, aiming to encourage procurement of operating funds from external sources.

- ii) Expansion of the international research network [Project No. 21]

HU has actively worked on conclusion of comprehensive agreements with foreign universities and research institutions. In AY2017, 66 agreements were concluded with universities (totaling 310 agreements), and 29 agreements were concluded with departments of other universities (totaling 411), to expand its international research network to promote international joint research activities and international collective writing of papers.

Especially in the area of exchange with researchers in India, Hiroshima University, mainly through its certified self-sustained research center, has concluded a LoI (Letter of Intent) with CSIR, a research institute that is directly controlled by the Indian Government and has 38 research centers in India, as the first university in Japan and Asia, aiming to conduct international joint research activities with other organizations and to expand its international research network.

HU also hosted events that invited top-class researchers in and outside Japan to provide them opportunities to exchange information, such as workshops with partner universities overseas, and the "Hiroshima University Intellectual Forum" (Lecture by a Nobel prize winner).

- iii) Increase in international collective writing of papers [Project No. 22]

Please refer to "Actions for Strategic and Ambitious Objectives and Plan" on pp. 27 and 28.

- iv) Strategic focus on research activities by utilizing a new evaluation technique for research activities [Project No. 23]

Please refer to "Actions for Strategic and Ambitious Objectives and Plan" on p. 28.

### (ii) Research support and effective use of research resources

- i) Reinforcement of the research support system [Project No. 24]

From AY2013, to reinforce its research support system, HU has worked to establish a campus-wide URA organization (under the Research Planning Office) comprised of senior URAs (University Research Administrators), who take charge of research promotion at the headquarters, URAs and associate URAs, who support research activities in individual departments. To support big projects, experts with academic careers who can understand the contents of research activities have been mainly appointed as senior URAs and URAs. HU has worked to optimize the URA organization to support the enhancement of research abilities, by developing and deploying both people with advanced academic knowledge and people with administrative abilities to promote collaboration among URAs and integration of their diverse abilities.

In AY2017, to accelerate the progress of the transitional research conducted before clinical research, one Senior URA and one URA who specialize in the medical field and are familiar with industry-academia collaboration were added. Including the expanded URA workforce, HU continued to support vitalization of international research activities in

core research fields of the University by assisting in filing of applications for financial aid programs provided by third parties, and assisting in active publication of results of international research activities.

In AY2014, the Writing Center started to provide financial aid for a part of the costs of English proofreading services. In AY2017, aid of 6,935,993 yen was provided for 334 uses of proofreading services.

To promote the internationalization of the administrative office, URAs and administrative employees work with two foreign fellows who speak English as their mother tongue (a science communicator in charge of international public relations who was hired in AY2017 and a fellow in charge of consultation on English paper writing who was hired in AY2016) at the same workplace. In AY2017, the second year for this two-foreign-fellow system, HU established a support system for international research activities that utilize both the language skills and the management ability of URAs and advanced specialists. With this support system, when an organization within the University conducts international joint research activities with a foreign organization or expands the international research network, the administrative work can be quickly and flexibly processed, including concurrent checking by a native English speaker of a draft of an agreement and other documents prepared in English.

### (3) Activities to strengthen management and other functions to facilitate industry-academia-government collaboration

#### i) Activities to strengthen management and other functions to facilitate industry-academia-government collaboration [Project No. 28]

In the area of industry-academia collaboration, the University established the Joint Research Institute for Co-Creation System that promotes co-creation of new added value through collaborative research activities between Hiroshima University and business enterprises and promotes development of human resources, based on advanced mutual understanding and trust between the University and private enterprises and other external organizations.

As the first project, the Kobelco Construction Machinery Mugenryoku Co-Creation Research Institute was formed on April 1, 2018, on the University campus.

To strengthen the management of preventing technology outflow to comply with the "Guideline for Promoting Joint Research Projects between Industry, Academia and Government," co-published by the Ministry of Education, Culture, Sports, Science and Technology and the Ministry of Economy, Trade and Industry, in January 2018 a management meeting of the Organization for Promoting Industry-Academia-Government and Community Collaboration (chaired by the President) was held to explain to deans and directors about this research institute. At the same time, the University created the "Guideline for Protecting Confidential Information in Industry-Academia Collaboration" and related rules to strengthen its risk management.

#### ii) Reforming of systems for joint research projects [Project No. 28]

To improve the cost calculation method for collaborative research projects and make it easier to grasp problems related to costs and grounds for spending, the indirect cost calculation method was changed to an hourly-rate method.

In AY2017, the University concluded 357 new agreements (including 271 hourly-rate-based agreements with private enterprises). Out of these 132 agreements (48.7%) were hourly-rate based, aiming to secure expenses necessary for joint research activities and to increase the indirect expenses.

#### iii) Reinforcement of information delivery functions [Project No. 28]

To improve the convenience of users, the "HIMAWARI" integrated technical information delivery system was renewed as the Hiroshima University Industry-Academia Research Seeds Database for Co-Creation search website. By mutually linking this website with the "Profiles of Faculty and Research Scholars" website, the University established a new system that enables a centralized search of both information on industry-academia collaboration and research information. This system is expected to increase access by enterprises to search for HU's research seeds, which will result in an increase in the number of joint research agreements and acquisition of more external funds.

### (4) Cooperation with society and contribution to the community

#### i) Expansion of organizational large-scale joint research projects [Project No. 28]

To accelerate industry-academia collaboration between organizations, HU concluded comprehensive collaboration agreements with outside parties and expanded the "Joint Research Course." In AY2017, HU concluded seven additional comprehensive collaboration agreements: three agreements with companies, two with other universities and two other agreements.

On March 1, 2018, HU concluded the Basic Agreement for Collaboration and Cooperation with RIKEN Japan. On the same day, HU opened the RIKEN/Hiroshima University Joint Research Center at the Innovation Plaza of HU, as a life science joint research center. By the conclusion of this basic agreement and the opening of the joint research center, a new framework for collaboration/cooperation was established, utilizing the R&D abilities, research environment and human resources of both organizations. By utilizing the synergy of comprehensive R&D abilities of the two organizations, the research center will play an important role in promoting the advancement of science and technology, development of education and regional revitalization.

HU concluded a comprehensive agreement with IZUMI Co., Ltd. in April 2017 and has worked with IZUMI on utilization of big data. It is expected that the collaboration between the company and teachers in the School of Informatics and Data Science (a new school established in AY2018) will bring meaningful results.

In AY2017 two joint research lectures were added, totaling seven lectures. Subsequently, eight more lectures were added in AY2018. By establishing industry-academia joint research centers within HU for a long term and pursuing large-scale joint research projects between organizations, HU has further promoted its research activities, social deployment of research results and creation of innovations. As for comprehensive collaboration agreements with companies, in addition to the existing four agreements with Mazda Motor Corporation, HU concluded two agreements with Kobelco Construction Machinery Co., Ltd. (one in AY2017 and one in AY2018). A new research project was established with JFE Steel Corporation in AY2018. HU has steadily implemented industry-academia collaboration between the University and organizations.

#### ii) Development of sites for the Hiroshima Research Complex [Project No. 28]

To develop sites for the Hiroshima Research Complex plan, interview surveys were conducted with relevant parties from companies and local governments. HU also examined examples of research complexes in other areas, such as Kitakyushu Science and Research Park and the Kobe Office of RIKEN Japan. HU also discussed the vision and roles of the planned research complex and participating companies.

In addition, to develop a joint research center as a result of the transfer of a part of the functions of RIKEN Japan, as explained above, the Basic Agreement for Collaboration and Cooperation was concluded with RIKEN and the RIKEN Research Center was opened on the HU campus to further strengthen the collaboration and expand joint research activities.

iii) Development of a foundation for forming regional eco system [Project No. 28]

Based on the agreement concluded between HU and the School of International Biodesign, India, candidates for teachers in charge of the "Hiroshima Biodesign Education and Development" course were dispatched for training in India (one trainee until the end of December 2017 and one additional trainee in February 2018), aiming to develop innovation human resource development staff members in the field of biodesign for creating medical equipment industries.

Aiming to introduce education menus in several phases, provision of individual guidance to two local companies was started in March 2018. In addition, from April 2018, HU has been making preparations to offer new subjects in the Graduate School of Biomedical & Health Sciences: Lecture on Biodesign; and Seminar I on Biodesign. In January 2018, an activity center was established on Kasumi campus for close collaboration with the University Hospital.

In June 2017, when a team from India visited the University, an innovation seminar (with 90 participants) and a workshop (with 12 participants) were conducted for wider awareness building.

HU has implemented a support program for young researchers, aiming to develop technologies and patent applications that will lead to technological innovation in the industry, to promote joint research activities and to acquire large-scale funding. HU conducted a questionnaire survey of 60 researchers who received support from this program and compiled the results of the survey. According to the survey, with the support of this program, 14 industry-academia joint research projects were conducted and 23 papers and reports were presented, showing that the support program greatly contributed to the improvement of research abilities of young researchers. It was also decided to start consideration regarding a more helpful reporting method of results and networking between supported researchers. In AY2017, seven researchers from the life science field and engineering fields were selected under this program and started their research activities.

iv) Finding new partners for overseas industry-academia collaboration [Project No. 28]

The following activities were carried out in order to strengthen the presence of Hiroshima University in the international society and find new overseas collaboration partners, mainly focusing on Mexico and other Latin America countries. Collaborative activities in South East Asia have solidified. Systems established for industry-academia collaboration in Indonesia, China and other Asian countries were also adopted and have been continuously utilized in Vietnam and Myanmar. Furthermore, to realize collaboration with companies in India, HU concluded comprehensive agreements with Indian companies and universities. Collaborative activities in Singapore also started. HU's networks in Latin America and South East Asia have significantly expanded by these activities. HU also implemented activities to strengthen collaboration in the U.S. and Europe.

- As a part of the "Program for Establishing the Industry-Academia-Government Innovation Creation System," JICA's strategic Japan-Mexico partnership training (from May to December 2017), the Center for Collaborative Research & Community Cooperation of Hiroshima University accepted three trainees from Mexico in December 2017. As a part of this program, the Center started to develop a venture creation system and hosted a venture pitch competition with UNAM University in Mexico via video conference in November 2017.

Subsequently, one of these trainees was hired as a researcher of HU and has been

engaged in operations related to international industry-academia-government collaboration. This was a new experiment, but has been greatly helpful for strengthening collaboration with Latin America.

- The Japan-Mexico Presidents' Meeting was successfully conducted at Hiroshima University from November 29 to December 19, 2017, inviting 70 university presidents from Japan and Mexico.
- In November 2017, the manager of the Global Innovation Division, the Center for Collaborative Research & Community Cooperation, attended the conference of LACHEC, an international conference mainly comprising universities in Colombia, as a representative of Hiroshima University. The manager also visited National University of Colombia and negotiated the conclusion of an inter-university agreement with the university. Subsequently, the President of Hiroshima University visited the National University of Colombia and concluded an agreement on April 30, 2018.
- An inter-university agreement was concluded with UNAM (National Autonomous University of Mexico) in Mexico in August 2017.
- The Manager of the Global Innovation Division, the Center for Collaborative Research & Community Cooperation, visited San Marcos University in Peru in March 2018 to negotiate an MOU. Subsequently, the President of HU visited Peru and concluded an MOU on May 4, 2018.
- In March 2018, HU and Guanajuato University (Mexico) co-hosted a seminar on industry-academia-government collaboration in innovation in agriculture and food at the campus of Guanajuato University. The seminar was very successful. Several universities from Europe also participated in it.
- In March 2018, HU invited researchers from Mexico, Colombia, Peru and Bolivia as speakers about industry-academia-government collaboration in their countries. The Phoenix Salon program "Latin America" was carried out, where experts from universities and industries exchanged information and held discussions. A presentation meeting regarding business start-ups was also conducted.
- In October 2017, the second "Myanmar Industry-Academia-Government Collaboration Seminar" was hosted jointly in Myanmar by HU, Fukken Co., Ltd., Yangon Technological University, and the Myanmar Engineering Society, to discuss geotechnical engineering (with 300 participants), contributing to the solution of social problems in Myanmar. HU is now negotiating an inter-university agreement with Yangon Technological University.
- In August 2017, the second "Vietnam Industry-Academia-Government Collaboration Seminar" was hosted jointly in Vietnam by HU and Vietnam National University (Ho Chi Minh School) to discuss solutions to problems in food and agriculture in Vietnam, by inviting speakers from Kume Fertilizer Co., Ltd. (Higashi Hiroshima) and Satake Vietnam, and several other speakers from local companies (with 70 participants).
- In May 2017, HU concluded an international exchange agreement with the Indian Institutes of Technology (Madras School).
- In June 2017, HU concluded a comprehensive agreement with Satyam Venture in India.
- In November 2017, HU co-hosted with the Economic Development Board of Singapore an extended Phoenix Salon regarding Singapore. It was agreed with the EDB to consider implementing matching and seminars in Singapore about foods in the future.
- As a part of the PEACE international cooperation program, HU conducted four sessions of Ideas Mining, inviting three persons from the University of Münster (Germany). Participants included students from HU (including foreign students) and participants from the Hiroshima University of Economics and the Hiroshima Convention & Visitor Bureau. One of these sessions was moderated by the HU Center for Collaborative Research & Community Cooperation (from February 21 to March 1, 2017).

v) Center of Innovation (COI) [Project No. 28]

Hiroshima University plays a core role in the Center of Innovation (COI) Program (the Center of KANSEI Innovation Nurturing Mental Wealth) of the Japan Science and Technology Agency (JST). In the research activities under this program, HU performed verification of a hypothesis about a brain network using fMRI to find out the mechanism of visualization of sensitivity and acquired knowledge leading to prediction of Kansei information and detection of errors in prediction and discovery of the function of the island cortex.

To widely disseminate these research results to society, from August to September 2017, HU exhibited them at a booth at JST Fair 2017 and hosted an open symposium in the Hiroshima region in January 2018 (with 201 participants). To strengthen collaboration between participating organizations, a summer study session was conducted in August 2017, mainly comprising young researchers (with 116 participants) and a three-center joint result reporting meeting was held in December 2017 (with 118 participants).

HU developed a prototype of a *Kansei* meter that uses an EEG measuring instrument to measure emotions in real time based on personal attributes. In the area of social deployment of technologies, utilizing the technology and other knowledge developed in joint research activities with Mazda Motor Corporation in FY2016, HU conducted joint research activities with other participating companies.

As for treatment of intellectual properties, a general meeting of participating organizations was conducted in March 2018 to discuss the revision of the Memorandum for Joint Research Activities at the Center of KANSEI Innovation Nurturing Mental Wealth.

Looking ahead to the completion of the project, HU also developed a portfolio in the areas of education, research and social deployment for realizing independent operation of centers, and started consideration of development of an excellent undergraduate program focusing on Kansei, development of Kansei COI projects into centers, and development of new social deployment programs.

vi) Formation of a Program on Open Innovation Platform with Enterprises, Research Institutes and Academia (OPERA) [Project No. 28]

To promote full-fledged industry-academia joint research projects between organizations, with close collaboration with industry, HU has worked to form an industry-academia "genome editing" consortium for co-creation, comprising 30 organizations (11 universities and research institutes and 19 companies). The Consortium expanded collaborative research activities by conducting outreach activities, such as four sessions of a social trend study meeting focusing on microalgae, drug discovery, medical care, and other subjects; patent search on genome editing technology (ZFN, TALEN); and exhibition at the Japanese Society for Genome Editing. Three additional institutions will participate in the Consortium in FY2018.

vii) Promotion of regional revitalization by playing the role of a center of communities [Project No. 28]

In the "Hiroshima Initiative to Nurture a Peaceful Society for All People" project, which had been selected by MEXT as a Center for Communities (COC) project in AY2013, two meetings of the Hiroshima University Hiroshima Initiative Council, a consortium comprising stakeholders from inside and outside Hiroshima University, were held on June 1, 2017 and February 28, 2018, to report the results of the COC activities. The operating structure and other systems of the COC were reorganized in order to continue its operation after the support period.

On January 25, 2018, an evaluation meeting of the third-party evaluation committee was held. Members comprising third parties conducted general evaluation of the activities of the COC project of Hiroshima University. The project received a general evaluation of "B" (in

five-level scale; "A" is the highest score).

On February 28, 2018, a symposium to present a summary of the project activities was held. The achievements of the project were widely communicated with the participation of 60 people from inside and outside the University.

To draw a concrete picture of people necessary for this project, HU offered the following two educational programs to develop "Hiroshima Leaders for Peace and Harmony" who uphold the spirit of "Pursuit of Peace" and can contribute to realization of a society where diverse people live harmoniously in diverse areas:

- A peace education subject, "Introduction to Hiroshima Leaders for Peace and Harmony" (started in AY2017, 87 participants in the first year); and

- A special program, "Hiroshima Peace Initiative Leader Program" (started in AY2018).

HU also established a system to include community-based education programs in undergraduate courses. In particular, in the field of solutions for problems in mountainous areas and islands, which was mainly led by the School of Applied Biological Science, the education program under this project has been successfully offered to all students of the University.

(5) Activities for globalization

i) Addition and expansion of overseas sites [Project No. 30]

Please refer to "Actions for Strategic and Ambitious Objectives and Plans" on pp. 28, 29 and 30.

ii) Short stay program "Study Tour Abroad for Realization and Transformation (START)" [Project No. 30]

Please refer to "Actions for Strategic and Ambitious Objectives and Plans" on pp. 28, 29 and 30.

iii) Medium-term and long-term student exchange program [Project No. 30]

Please refer to "Actions for Strategic and Ambitious Objectives and Plans" on pp. 28, 29 and 30.

iv) Improvement of the organization of the Morito International Advanced Education School [Project No. 30]

Please refer to "Actions for Strategic and Ambitious Objectives and Plans" on pp. 28, 29 and 30.

v) Japanese language and culture training to encourage foreign students to study at HU [Project No. 30]

Please refer to "Actions for Strategic and Ambitious Objectives and Plans" on pp. 28, 29 and 30.

vi) Conclusion of inter-university exchange agreements [Project No. 30]

Please refer to "Actions for Strategic and Ambitious Objectives and Plans" on pp. 28, 29 and 30.

vii) Retention of globally competent human resources [Project No. 31]  
Please refer to "Actions for Strategic and Ambitious Objectives and Plans" on pp.30 and 31.

viii) Redesigning of curriculum by Japanese proficiency level [Project No. 32]  
Please refer to "Actions for Strategic and Ambitious Objectives and Plans" on p. 31.

ix) Provision of online Japanese language programs [Project No. 32]  
Please refer to "Actions for Strategic and Ambitious Objectives and Plans" on p. 31.

x) Verification of the quarter-teaching system [Project No. 33]  
HU verified the results of the questionnaire survey conducted with students and teachers in charge of individual subjects in AY2016 regarding the quarter-teaching system. According to the survey, students felt that they could concentrate on individual subjects because there were fewer tests at the term-end and that they could learn effectively because classes were taught intensively in a short period. On the other hand, as for a subject that is taught in two sessions in a row on the same day, students felt that the impact of absence was greater than in the semester system. Teachers in charge of term subjects responded that they could effectively teach exercise classes because the lecture class and the exercise class were taught in a row on the same day and that students seemed to learn more efficiently because the next course is taught before they forget the content of the previous course. On the other hand, when they canceled the teaching schedule for a day for some reason, the impact was great because two sessions were canceled. It was also difficult for some students to acquire credits because they could not attend classes while they were sent to the on-the-job teaching practice program or the caregiving experience program or other similar program. Based on the results of the questionnaire and opinions collected from the opinion meetings with individual departments, HU determined transition patterns for term subjects. HU also identified subjects that would be difficult to change to term subjects. Based on these results, HU established a basic policy for a change to a term-teaching system for all schools at the University. According to this policy, HU worked on implementing the change to the term-teaching system in AY2018.

As an action to promote change to the term-teaching system, the Headquarters for Education also implemented observations of liberal arts classes and study meetings. Class observations were conducted in classes of subjects that were provided two sessions in a row, to consider methods for introducing active learning. Teachers in charge of subjects and other observers participated in these observations and exchanged opinions after the observations [25 participants in May, 25 participants in July and 22 participants in November).

## (6) Activities of the Hospital

### (i) Activities to improve education and research functions of the Hospital

i) Active exchange with foreign institutions [Project No. 36]  

- Hiroshima University Hospital (hereinafter the "HU Hospital" or simply the "Hospital") accepted one pharmacist from Taichung Veterans General Hospital (Taiwan). In addition, nine persons, including the hospital director, doctors and nurses, were invited from Taichung Veterans General Hospital to the 2017 Health Science Symposium with Taichung Veterans General Hospital.

- Delegations of doctors and nurses from Chungnam National University Hospital (South Korea), each comprising 24 members, visited the HU Hospital in June and November 2017.
- The HU Hospital sent a physiotherapist to the Health Sciences Course, the University of Sydney, for learning technical skills of behavior analysis.
- HU accepted one resident from Ho Chi Minh Medical University as a special research student of the Graduate School of Biomedical & Health Sciences. Subsequently, the HU Hospital accepted this resident as a foreign doctor taking clinical training under the HU Hospital Post-Graduation Clinical Training Program.

ii) Enhancement of Post-Graduation Clinical Training Program [Project No. 37]  
As there had been no matching in the Pediatrics/Gynecology Intensive Training Course for two consecutive years, when the Post-Graduation Clinical Training Program for AY2018 was created and offered, the Program was expanded into a cross-training program, by adding two hospitals as clinical training cooperative hospitals.

iii) Community clinical training at the Minamisoma Municipal General Hospital [Project No. 37]  
After the accident at the Fukushima Daiichi Nuclear Power Plant, the HU Hospital concluded a collaboration agreement with Fukushima Medical University regarding collaboration in the fields of education, research and medical services. As a part of the collaboration under this agreement, two residents were sent to community medicine training incorporating disaster medicine at the Minamisoma Municipal General Hospital, a cooperative clinical training hospital of the HU Hospital.

iv) Development of a world-top-class radiation therapy team [Project No. 37]  
The Hospital established a program to develop globally competent human resources (a radiation therapy team) that provide world-top-class radiation therapy and to dispatch the developed human resources to other medical institutions in the region and neighboring Asian countries. Under this program, the Hospital dispatched a study group to advanced radiation therapy facilities in and outside Japan to develop an educational program that realizes the standardization of radiation therapy techniques. The Hospital also collected information necessary for establishing a regional collaboration system for radiation therapy. In addition, the Hospital conducted a team-building workshop to deepen mutual understanding between different job categories involved in radiotherapy. Also, in cooperation with enterprises, it offered exercise training sessions to build a collaborative structure. The Hospital also made presentations at academic conferences on team medicine in radiotherapy.

v) Development of globally competent medical professionals for the future [Project No. 37]  
To develop globally competent medical professionals who are able to practice next-generation medicine by integrating it seamlessly into regional medicine, the HU Hospital held meetings with related facilities, aiming to establish a network of related medical institutions of HU and foreign medical institutions mainly led by the Center for Development of Globally Competent Medical Professionals for the Future Program, and to develop a human resource development program utilizing the network. The Hospital held the World Health Summit in Hiroshima 2017 to promote blending of advanced medicine and regional medicine. It also held 14 sessions of open seminars to disseminate information to doctors, residents, and medical professionals at the HU Hospital.

- vi) Development of human resources capable of providing medical care in the event of nuclear disasters [Project No. 37]  
As a support center for advanced radiation exposure medicine and as a general medical and support center for nuclear disasters, the Hospital endeavored to develop human resources capable of providing medical care in the event of nuclear disasters. The Hospital sent one doctor and one medical professional to an overseas training program and had 13 persons, including doctors, nurses and clinical radiation technologists, participate in specialized seminars and other relevant events in Japan.
- vii) Promotion of medical research activities [Project No. 38]  
To promote medical research activities at the University, in April 2017, the University set up the Medical Research Promotion Council led by the Vice President in Charge of Research Ethics. It has considered the establishment of a Medical Research Organization as an ARO (academic research organization) that organically integrates the University's medical research activities and maximizes their functions. It also examined the following activities: promotion of translational research projects that develop basic research results for the clinical development stage leading to use in medical treatment; acquisition of more competitive funds from the Japan Agency for Medical Research and Development (AMED), a research expense subsidy program of the Ministry of Education, Culture, Sports, Science and Technology and other sources; IR (investor relations) for medical research projects and a method to promote them; etc.
- viii) Support to Paralympic athletes [Project No. 38]  
Toward the Olympic and Paralympic Games in 2020, the Hospital strives to provide support to world-top-level athletes with disabilities (para-athletes). To establish a multi-support system to ensure collaboration between different job functions, the Hospital, mainly via its Sports Medical Center, expanded its research projects to improve the performance of para-athletes and to prevent injuries to para-athletes. Joint research projects with sports associations for the disabled were also implemented to deploy research results in actual playfields. Results of these research projects were presented at academic meetings and other occasions in and outside Japan. Furthermore, in accordance with an agreement concluded between four parties (Hiroshima University, the government of Hiroshima Prefecture, the Hiroshima Prefecture Sports Association for the Disabled, and NPO STAND) in October 2016 for collaboration and coordination in para-sports activities, the ALL HIROSHIMA SPORTS SUMMIT and the Sports Experience for the Disabled event were conducted.
- (ii) Activities to ensure quality of medicine**
- i) Establishment of International Center for Lymphedema [Project No. 35]  
In April 2017, the Hospital opened the first international center for lymphedema in Japan to provide multidisciplinary treatments to patients with lymphoedema and to make appropriate diagnosis and mitigate the conditions of the patients. Also, to enhance the lymphedema treatment and to strengthen the functions of the Hospital, one specially appointed professor (who concurrently serves as the Center Director) and one assistant professor were posted at the Center (in accordance with the President's strategic point).
- ii) Reinforcement of the medical safety management system [Project No. 35]  
• To secure proper provision of medical treatments that use highly advanced medical technologies or unapproved drugs or medical devices, in April 2017, the Hospital established the Department of Evaluation for Highly Advanced Medical Technology and the Department of Evaluation for Unapproved Drugs and Medical Devices. In addition, to determine the ethics of proposed cases, their scientific validity, appropriateness of

- providing them at the HU Hospital, appropriate provision methods, and other factors, the Hospital dissolved the Medical Ethics Review Committee to form a better organizational structure and established the Highly Advanced Medical Technology Evaluation Committee and the Unapproved Drugs and Medical Devices Evaluation Committee under the respective evaluation departments.
- In April 2017, the Hiroshima University Medical Safety Audit Committee was established as an external audit committee. The purposes of this Committee are to confirm the status of operations related to medical safety, request corrective measures for medical safety management, as necessary, and publish the results of its audit to the public.
- iii) Retention of medical professionals [Project No. 35]  
• In October 2017, the Hospital introduced a two-shift work system for nursing staff members, aiming to provide diverse working styles that fit different needs of individual employees regarding their work-life balance.  
• To improve the treatment of contract medical technical workers, the Hospital has created new job titles: medical social worker (general worker) and chief licensed cook (skilled/labor worker). Full-time employment is offered for these positions.
- iv) Support for female doctors to stay on their career path [Project Nos. 35 and 37]  
The HU Hospital was selected as one of the implementers of the "Female Doctor Career Support Model Promotion Project 2017" of the Ministry of Health, Labor and Welfare. In FY2017, under this project, the Hospital set up the "Hiroshima University Hospital Hiring Quota for Female Doctors," an additional quota besides the regular recruitment quota. It is a career support system tailored to fit diverse circumstances of individual female doctors who wish to return to work. Under this quota, five female doctors were hired, contributing to general retention of doctors and supporting female doctors by providing opportunities to return to full-time work.
- v) Conclusion of a medical support agreement with Sanfrecce Hiroshima [Project No. 36]  
In May 2017, to support J1 Sanfrecce Hiroshima, a professional soccer team, in the area of medical care, the Hospital, Mazda Hospital and Sanfrecce Hiroshima signed a medical support agreement. Doctors from the Department of Orthopedic Surgery have provided medical treatments and surgical operations to team members as team doctors of Sanfrecce Hiroshima. Starting from this season, in addition to this medical care, the Hospital has provided support in the psychological and nutritional areas as well as support for everyday health care, such as internal medicine. Also, the Sports Medical Center of Hiroshima University Hospital began programs to support players' ability to improve their competitive power by conducting motion analysis and giving instructions regarding ideal body movement and muscle power building.
- vi) Improvement and reinforcement of the disaster medical system [Project No. 36]  
The Hospital implemented the "Basic Training for Medical Care for Nuclear Disasters" program for teachers and administrative employees on the HU Kasumi Campus to provide them the basic knowledge necessary for accepting people injured in nuclear disasters. In addition, to make it easier and more effective to conduct medical rescue activities in the event of a disaster, the Hospital conducted the Hiroshima University Hospital Disaster Medical Relief Training program, which included training on accepting patients exposed to radiation.
- vii) Securing of doctors in mountainous areas and on islands [Project No. 40]  
Aiming to secure the posting of doctors in mountainous areas and on islands in Hiroshima Prefecture, the government of Hiroshima Prefecture and the University have implemented



the “FURUSATO (Hometown) Admission Quota” for the School of Medicine since FY2009. Five students enrolled in the first year of this project completed six years of the undergraduate course and two years of initial training in March 2017. In April 2017, they were posted to local medical institutions.

**(iii) Activities for continuous and stable hospital management**

- i) Reinforcement of the governance system [Project No. 35]  
To ensure that it makes appropriate decisions as a hospital, the Hospital reviewed the responsibilities of deputy directors and associate directors. As of April 2017, to strengthen the governance at the Hospital, the responsibilities of the Deputy Director in charge of “Education and Clinical Training” were changed to “Dental Education and Clinical Training.” The responsibilities of the Associate Director in charge of “Education and Training” were transferred to a Deputy Director and expanded to “Medical Education, Training and Internationalization” by adding internationalization. And the responsibilities of the Deputy Director in charge of “Working Environment Improvement” was transferred to an Associate Director and changed to “Working Environment Improvement and Cost Improvement.”
- ii) Establishment of a medical service organization for the Futaba Area in Fukushima Prefecture [Project No. 36]  
The Hospital received a request from Fukushima Medical University to cooperate in establishing a medical care organization in the Futaba Area, Fukushima Prefecture, in anticipation of the lifting of the evacuation order issued following the accident at the Fukushima Daiichi Nuclear Power Station, and of the return of citizens to the town in the future. In response to this request, the Hospital established the Fukushima Medical Support Center in April 2016. One physician from the Hospital has been stationed at Fukushima Medical University since October 2016 to cooperate in the restoration of Fukushima Prefecture through medical support.
- iii) Establishment of a nuclear disaster medical care organization [Project No. 36]  
As a hospital designated by the national government (Nuclear Regulatory Commission) as an advanced medical support center for radiation exposure and a general support center for nuclear disaster medical care, the HU Hospital strove to establish a system for nuclear disaster medical care. It sent a total of 32 lecturers, including doctors, nurses and clinical radiation technologists, to nuclear disaster drills conducted by eight prefectures that have nuclear power plants and other nuclear facilities to provide advice and guidance. As a part of the project to enhance people’s awareness of nuclear disaster medical care, it conducted a national professional training program with 13 lecturers. The Hospital also sent a total of 123 professionals to 12 medical institutions in 4 prefectures to conduct study sessions and decontamination drills. The Hospital also sent three experts to aid request training, as a registered organization of the Response and Assistance Network (RANET) of the International Atomic Energy Agency (IAEA).
- iv) Support to female doctors to stay on their career path [Project Nos. 37 and 40]
  - In April 2017, the Hospital established the Woman Doctor Support Center, to promote creation of working environments that support job satisfaction and efficiency of female doctors and to establish workplaces where female doctors can continue their careers and are encouraged to return to work.

- To promote support to female doctors in cooperation with other medical institutions in the region, the General Conference of Hiroshima University Hospital Woman Doctor Support Center was held, with the participation of hospital directors and personnel managers from related hospitals in Hiroshima Prefecture; interested parties from the government of Hiroshima Prefecture, prefectural and municipal medical associations, and the Hiroshima Prefecture Regional Medical Support Center; and managers of clinical departments and personnel managers from the HU Hospital. At this conference, participants exchanged opinions regarding systems to support the continued careers of female doctors who have some constraints, such as childcare.
  - As a part of support activities for pregnant doctors, from July 2017, the Hospital has provided maternity uniforms to pregnant doctors working at the HU Hospital and other hospitals in Hiroshima Prefecture.
- v) Improvement of hospital management [Project No. 39]
    - The Hospital calculated monthly costs of each clinical department and each function by using the University Hospital Management Accounting System (HOMAS2) to identify departments where operating profit increased or decreased significantly from the same period of the previous year to analyze factors for these changes. The Hospital also analyzed each cost item included in the cost accounting for AY2016 for each clinical department, by comparing them with AY2015.
    - For hospitalized and discharged patients treated under the Diagnosis Procedure Combination/Per Diem Payment System (DPC/PDPS), monthly medical treatment fees of each clinical department were analyzed. Surgical technique levels were analyzed by using the draft system proposed by the “Federation of Social Insurance Committees of Surgical Societies (Gaihoren).”
    - For hospitalized patients who were treated under the DPC/PDPS and discharged during the previous year, “average hospitalized days and distribution of medical unit price,” “difference in hospitalized days from the national average, distribution of differences from average fees,” “percentage of discharges by month and states of differences in fees,” “difference from the national average in hospitalized days and difference from average fees for Top 10 Diagnosis Groups” and “profit/loss status of Top 10 Diagnosis Groups by DPC” were analyzed for each treatment department.
    - The Hospital continued verification of cost effectiveness of the facility standards, including those scheduled to be reported to the authorities, based on the cost accounting data and analysis of calculation of medical treatment fees. Conformity to the new facility standards that can be used for the calculation was examined and reported to the authorities. To increase revenues and improve the operation management of the Department of Hematology, a department with a low medical profit margin, the Hospital implemented improvement of its facilities by expanding the number of private patient rooms from six to twelve, which is used to calculate the “Sterile Room Management Addition 2.”
    - When considering installation of new large medical equipment, the Hospital analyzed running costs arising from the maintenance contract or lease contract for the equipment. Based on the results of the analysis, the Hospital decided the procedures for installation to reduce costs.
    - To reduce maintenance costs of copying machines and the cost of copy paper and other supplies, the Hospital has considered realization of paperless meetings. In July 2017, it started a paperless meeting system by using tablet devices.
    - Based on the results of physical inventory checks, the inventory control conditions of drugs and medical supplies were analyzed. Activities to reduce variances from the book inventory and reduce the inventory size were conducted, such as search for missing items and review of purchase quantities.

- The Hospital negotiated discounts with suppliers for all drugs. Negotiations were also conducted for contracts for medical supplies of a total value of two million yen. For these negotiations, the average of the four lowest prices offered to national universities in Japan was set as the discount target for each item. As a result of these negotiations to obtain more discounts, it is expected that the total costs will be reduced by about 40 million yen per year.

vi) Activities for proper deployment of doctors [Project No. 40]

The Hospital held the “Hiroshima University School of Medicine - Conference of Representatives from Clinical Practice Departments” in cooperation with the government of Hiroshima Prefecture and the Hiroshima Prefecture Regional Medical Support Center. At the conference, participants shared information on deployment of doctors to individual medical practice departments and concentration of doctors.

**(7) Activities of schools attached to the University**

**(i) Activities to tackle educational tasks**

i) Activities under MEXT Research & Development School Program and other programs [Project Nos. 41,42, and 43]

Attached schools worked on three projects under the “MEXT Research & Development School Program” and one project under the “Next-Generation Human Resource Development Program” of the Japan Science and Technology Agency. In these projects, attached schools won a bronze medal in the 14th International Geography Olympiad (iGeo), a bronze medal in the Asia-Pacific Informatics Olympiad (APIO) 2017, and a bronze medal in the 58th International Mathematical Olympiad (IMO).

ii) Development of globally competent human resources in attached schools [Project No. 41,42,43]

- Attached schools concluded a partnership or sister-school agreement with foreign schools. Exchange activities were conducted with these foreign schools, such as joint educational training, collaborative learning and mutual school visits (one German school, one Czech school, two Korean schools, two Thai schools, two U.S. schools and one Australian school).
- On June 3, July 29, September 30, November 11, and December 16, 2017, attached high schools conducted the IDEC Cooperation Program. In this program, high school students in the second grade conducted group discussions, together with foreign students from the Graduate School for International Development and Cooperation, about “Environment,” and “Peace and Education” [five sessions, a total of 46 foreign students, a total of 105 high school students].
- A student from the attached high schools was selected as one of the “High School Peace Ambassadors.” On August 22, 2017, the Ambassadors visited the United Nations European headquarters, where the United Nations Conference on Disarmament was held, and called for the abolition of nuclear weapons and for world peace.

**(ii) Collaboration with the University and individual departments**

i) Development of a rubric to evaluate qualities and abilities necessary for a globally competent person [Project Nos. 41, 42 and 43]

To develop a rubric based on the common elements in global human resources training education considered in AY2016, a meeting of the Research Promotion Committee, which added teachers of the Graduate School of Education to its membership, was held on February 14, 2018, to establish an outline of the rubric. Group sessions were held in a group of kindergartens and elementary schools and a group of junior high schools and high schools to discuss and develop a common rubric (a scale divided into levels for each

ii) Cooperation in educational and research activities of the University [Project Nos. 41,42, and 43]

The schools attached to Hiroshima University cooperate in educational and research activities of HU in accordance with the “Procedures for Requesting Cooperation of Attached Schools in Educational and Research Activities of the University.”

In AY2017, attached schools cooperated in seven teaching projects of the University, including a project in which students from the School of Science and the Graduate School of Science learned how to teach knowledge and skills in chemical experience classes in junior high schools and acquired a vision and learned methods for developing teaching materials.

Attached schools also cooperated in two research projects, including a theme developing project in which teachers from the Graduate School of Education developed a theme to teach technical crafting in arts and crafts classes of elementary schools and conducted research to consider the technical qualities and abilities expected to be developed by practicing the theme.

iii) Joint research projects between undergraduate schools and attached schools [Project Nos. 41,42, and 43]

Joint research projects between undergraduate schools and attached schools have been continued since 2004 and were also implemented in AY2017. Sixteen applications were submitted from departments at the University. Out of these, the University selected 13 joint research projects that covered various fields. In AY2017, the research term was extended to two years. The results will be compiled in papers written in English and published in an electronic journal or presented at academic conferences to communicate them to the world in AY2018.

iv) Teaching practice in international situations [Project Nos. 41, 42 and 43]

As a part of the JICA training programs for individual countries for FY2017, attached schools and the Graduate School for International Development and Cooperation collaborated to accept educators from Zambia. They observed mathematics and science classes, received guidance in developing a teaching plan and practiced class teaching.

**(iii) Regional collaboration**

Activities as teacher training centers in West Japan [Project Nos. 42 and 43]

- To play the role of teacher training centers in West Japan, attached schools of HU accepted teachers from other prefectures and cities under personnel exchange programs. In AY2017, an attached school concluded a collaboration agreement with Tokushima Prefecture. Attached schools have worked on development of systematic training programs for these exchange teachers based on the qualities and abilities of exchange teachers according to their individual career stages. Principals of attached schools had meetings with members from the Hiroshima Prefecture Council of Chairpersons of Municipal Education Boards to discuss requests from public schools to HU attached schools and methods and approaches for collaboration with the community.
- Considering the requests presented at the meeting of school principals of Fukuyama District in FY2016, Hiroshima University Junior High School, Fukuyama and High School, Fukuyama added “Strengthening Collaboration with the Community” to the school management policy. As specific actions, the attached schools promote (1) collaboration with the Fukuyama city office as a part of the SGH (super global high school) program, and (2) collaboration with local schools and boards of education.
- In FY2017, Hiroshima Prefecture established the Hiroshima Child Nature Education Certification Program. Fourteen organizations were certified in the first year of this

Program. Hiroshima University Kindergarten was the only national/public kindergarten certified. This Program intends to promote mutual training and exchanges between certified organizations. By holding and participating in training activities under this Program, the attached kindergarten can contribute to networking with the community in the area of education and sharing of research results.

The attached kindergarten also hosted the Higashi Hiroshima Preschool Education Study Group, comprising 19 preschool and childcare facilities in Higashi Hiroshima City. Two workshops were held during the year, providing training opportunities to total of 150 childcare workers.

- The attached high schools and junior high schools started a joint research group, regarding preparation for establishment of a Global Leader School planned by the education boards of Hiroshima Prefecture. The joint research group cooperated in the consideration and trial of development of lessons taught in English. Teaching supervisors implemented trial lessons [trial lessons: 3 subjects in 19 hours].

#### (iv) Review of roles and functions

Activities to establish a Hiroshima University version of the "Measures to Enhance Functions" [Project Nos. 41, 42, and 43]

HU has the advantage of having all school types, from kindergartens to senior high schools. To further strengthen the roles and features of individual schools, HU established the Attached Schools Function Enhancement Review Working Group (WG), while considering their respective historical backgrounds and social missions. WG considered the Hiroshima University edition of the "Enhancement Measures." It also reviewed the existing plan for school reorganization and the appropriate size of the attached schools in the future.

#### (8) Joint usage and joint research centers

##### Research Institute for Radiation Biology and Medicine

##### (i) Activities and achievements as a joint usage/research center (including activities to strengthen the joint usage/research system and activities conducted in line with the purpose of the Institute)

###### i) Contribution as an academic center [Project No. 27]

The Research Institute for Radiation Biology and Medicine of Hiroshima University has established the "Research Center for Radiation Disaster Medical Science," a network of joint research centers with Nagasaki University and Fukushima Medical University, based on the former "Research Base for Radiation Consequence and Medical Science (stand-alone organization, from AY2010 to AY2015). This network of joint research centers carried out 197 joint research projects (total of the three universities) in AY2017, playing a core role in forming an academic center for radiation accidents and medical science.

###### ii) Triangle Project [Project No. 27]

The Research Center for Radiation Disaster Medical Science endeavors to contribute to the advancement of academic research as a network of three research centers, by taking advantage of the strengths and characteristics of individual universities. As a part of this effort, it started the Triangle Project in AY2017, working on "research on consequences and risks of low-dose exposure," "radiation hazard medical treatment," and "social impact of radiation disasters and protection from radiation." A new integrated research team was formed, comprising researchers from three member research institutes (the HU Research Institute for Radiation Biology and Medicine, the Atomic Bomb Disaster Institute of Nagasaki University and the Fukushima Global Medical Science Center of Fukushima Medical University). This team conducted 25 research projects.

iii) Implementation of Fukushima Prefecture Citizen University Open Forum [Project No. 27] With the theme of "From Reconstruction to Innovation - Think About the Future of Fukushima," the Fukushima Prefecture Citizen University Open Forum was held in Fukushima City in January 2018. About 700 citizens, more than four times last year's audience, attended this program. To utilize experience in reconstructing activities after the Great East Japan Earthquake as model cases in and outside Japan and to utilize them in creating a bright future, students from junior high schools, high schools and universities held active discussions with top leaders from different fields about what we should do next.

###### iv) International symposium [Project No. 27]

The Research Institute for Radiation Biology and Medicine held an international symposium in February 2017 with the theme of "Stepping Forward for Establishment of Science of Disaster Recovery and Revitalization" at Nagasaki University. Thirteen world-leading experts (including seven experts from abroad) were invited as speakers to share information and insights on the latest developments in radiation accident and medical science research activities. The meeting gathered 241 participants.

###### v) Self check/evaluation and external evaluation [Project No. 27]

Regarding activities of the Research Institute during AY2016, self-check/evaluation and external evaluation were conducted. The external evaluation committee, consisting of six experts, conducted an external evaluation. The committee evaluated the purpose of this Research Institute, the implementation system, applications for collaborative research projects, the examination of collaborative research projects, the support system, results of collaborative research activities, the uniqueness of activities, the improvement system, and responses to problems to be handled. All evaluation items received the highest rating of "Standards Satisfied."

###### vi) Conclusion of an agreement for loose collaboration between network-type joint research centers

In March 2018, to promote cooperation and exchange between network-type joint research centers of three universities, the "Agreement on Promotion of Collaboration and Cooperation Between the Network Joint Research Center for Materials and Devices, the Research Center for Biomedical Engineering and the Research Center for Radiation Disaster Medical Science" was concluded.

##### (ii) Unique activities and achievements of the Research Institute for Radiation Biology and Medicine

###### i) Holding of an exhibition [Project No. 27]

From August 4 to October 19, 2017, HU held the exhibition "Live at Ground Zero - History of Medical Care for Close-Range Atomic-Bomb Survivors" at the Medical Museum of the School of Medicine. Panels and document materials were presented and related movies were played at the exhibition. As a summer special experience program, the "See Chromosomes and Bone Marrow by a Microscope" program was carried out. A total of more than 1,000 persons visited the exhibit. At the opening ceremony held on the day before the event, HU issued a certificate of receipt to the honorary professor who assigned valuable materials to the Institute.

- ii) Holding of a lecture [Project No. 27]  
 As a concurrent event with the exhibition explained in i) above, on September 2, 2017, an honorary professor gave a lecture with the theme of "Footsteps of 78 people who survived the atomic bombs - Proof of inhumanity of atomic bombs," at the Hiroshima Peace Memorial Museum with the participation of about 150 people. With the concurrently held exhibition, it served as an opportunity to communicate the research activities of the Institute widely to the public.
- iii) Conclusion of inter-department international exchange agreements [Project No. 27]  
 To promote active researcher exchanges between departments, on September 7, 2017, the Research Institute for Radiation Biology and Medicine signed an international exchange agreement with the Burnasyan Federal Medical Biophysical Center of the Federal Medical Biological Agency, Russian Federation. Under this agreement, the two institutes will work closely together to promote joint research on radiation dose and health impact assessment and other research projects in the future.
- iv) Identification of genetic changes that determine individual differences in sensitivity to radiation [Project No. 27]  
 A joint research group mainly led by Hiroshima University has developed an analytical method to quantitatively evaluate the influence of specific genetic changes on radiosensitivity by using a genomic editing method on human cultured cell lines and proved that an ATM hetero gene mutation is one of the genetic factors of radiosensitivity. This research is expected to be the first step towards tailoring of radiation protection standards.

#### Hiroshima Synchrotron Radiation Center

##### (i) Activities and achievements as a joint usage/research center (including activities to strengthen the joint usage/research system and activities conducted in line with the purpose of the Institute)

- i) Status of joint use/research activities [Project No. 27]  
 Public solicitation of proposals for joint research projects was conducted twice during the year (January and July). In addition, the Center accepted academically urgent tasks as necessary from time to time. Proposals for joint research projects selected by HU increased steadily from 120 projects in AY2016 (including 26 joint research projects with foreign institutions) to 131 projects (including 30 joint projects with foreign institutions) in AY2017. In AY2017, there were 214 users, including 65 foreigners (30% of total users). In AY2017, ten foreign organizations joined the network. The network of international joint research has expanded to 66 institutions.
- ii) Research results [Project No. 27]  
 In AY2017 the Center published 34 peer-reviewed papers. Papers published in journals with seven or more impact factors (IFs) were one paper in ACS Nano (IF=13.9), one paper in Nano Letters (IF=12.7), four papers in Nature Communications (IF=12.1) and one paper in Phys. Rev. Lett. (IF=8.5) totaling seven papers (20% of all papers published by the Center). The Center conducted a high-resolution angle-resolved photoemission spectroscopy experiment, using low-energy synchrotron radiation and clarified that lattice vibration plays a crucial role in high-temperature superconductivity of copper oxide (published in the press release on July 6, 2017, mail to introduce the University, and on the English website of the University).

- iii) Improvement of the joint use/research systems [Project No. 27]  
 The Center deployed foreign teachers (AY2017: one associate professor (short-term) and one assistant professor) to further strengthen the international research network and its research abilities. Renewal of the radiation high-frequency power source was completed by using the President's discretionary budget, securing a stable supply of radiation beams. Furthermore, the air conditioner in the experiment hall was renewed by maintenance work for energy-saving.
- iv) International symposium [Project No. 27]  
The Center conducted the "International workshop on strong correlations and angle-resolved photoemission spectroscopy" (CORPES 17) from July 2 to 7, 2017. A total of 117 participants (including 63 participants from 19 foreign countries) presented their latest research results and engaged in active discussions on the strongly correlated electron system and angle-resolved photoemission spectroscopy. On March 8 and 9, 2018, the Center held the 22nd Hiroshima International Symposium on Synchrotron Radiation. A total of 93 participants (including 12 researchers from seven foreign countries) discussed trends in advanced research projects in the material science and biomolecular science fields that use radiation in the vacuum ultraviolet and soft X-ray range and summarized joint research projects for the year.
- v) Support for young researchers [Project No. 27]  
 The Center hired a post-doctor researcher from India as a researcher and accepted a female post-doctor researcher from the Chinese Academy of Sciences as a foreign guest researcher.
- vi) Synchrotron radiation experiments by graduate students [Project No. 27]  
 Under the cross-credit agreement between the HU Graduate School of Science and the Graduate School of Natural Science and Technology of Okayama University, the Center conducted the "Synchrotron Radiation Experiments for Graduate Students" (as a curriculum of Hiroshima University).
- vii) High school-university collaboration [Project No. 27]  
 The Center accepted 901 high school students from super science high schools and the Global Science Campus Project of Hiroshima University and under the Sakura Science Plan.
- viii) Activities to communicate information [Project No. 27]  
 The Center updated the website (in Japanese and English) as needed, to communicate information on the procedures of joint research projects, selection of research subjects, research papers, and highlights of research results (total visits to the website from April 2017 to March 2018: 56,298 visits, with 24% from foreign countries (mainly from the U.S., U.K. and China)).
- ix) External evaluation and self-check/evaluation [Project No. 27]  
 On March 9, 2018, the Center received an international evaluation on its research activities by an external evaluation committee (chaired by Prof. Ingolf Lindau, Stanford University, and five other foreign members) and received a rating of "Excellent." It also conducted a self-check/evaluation to prepare for an external evaluation on the general activities of the Center (to be conducted on April 5, 2018).

- x) Collaboration with university joint use organizations [Project No. 27]  
The Center participated in collaborative activities with the following university joint usage organizations: the Collaboration Support Project of the High Energy Accelerator Research Organization; a cooperative research project on light vortex with the Institute for Molecular Science (National Institute for Natural Science); research and development of a high-precision manipulator with the National Institute of Advanced Industrial Science and Technology based on a collaborative research agreement; and a material science research project using hard X-ray photoemission spectroscopy with the National Institute for Materials Science.

**(ii) Unique activities and achievements of the Hiroshima Synchrotron Radiation Center**

- i) Active implementation of cross-field research projects [Project No. 27]  
The Center conducted vacuum ultraviolet circular dichroism spectroscopy experiments using synchrotron radiation and observed for the first time that when DNA is damaged by radiation, histone protein undergoes structural change and a repair process is induced (published in the press release on December 8, 2017, and on the English website of the University).
- ii) Research on spin physicality [Project No. 27]  
The Center conducted the world's highest efficiency spin angle resolved photoemission spectroscopy experiments using synchrotron radiation and observed for the first time spin polarization of electrons of a new superconductor that is expected to create a spintronics material (published in the press release on December 1, 2017, in mail introducing the University and on the English website of the University). The Center also held the "1st HiSOR Spin Physical Properties Study Group - Prospect of spin resolved photoemission spectroscopy research with high-intensity light sources" to establish a network of researchers.

**Research Institute for Nanodevice and Bio Systems**

**(i) Activities and achievements as a joint usage/research center (including activities to strengthen the joint usage/research system and activities conducted in line with the purpose of the Institute)**

- i) Status of joint use/joint research, development of human resources, and activities to communicate information  
(Activities and achievements of network-type centers in general) [Project No. 27]  
The Research Center for Biomedical Engineering was established (AY2016 to AY2021) as a network of joint research centers of four universities: the Research Institute for Nanodevice and Bio Systems of Hiroshima University, the Institute of Biomaterials and Bioengineering of Tokyo Medical and Dental University; Laboratory for Future Interdisciplinary Research of Science and Technology of the Tokyo Institute of Technology; and the Research Institute of Electronics of Shizuoka University. The Research Center for Biomedical Engineering conducts research activities to realize practical use of bio materials and medical equipment. In AY2017, 195 joint research projects (the total of four universities) were implemented. The number of research projects increased by 38 from 157 projects in AY2016, suggesting the importance of this research field.
- ii) Status of joint use/joint research [Project No. 27]  
HU conducted 39 joint research projects (including 2 projects with foreign organizations) at the Research Institute for Nanodevice and Bio Systems in AY2017. Although the number of projects decreased by two from last year, the quality of these projects was high, with two technological development projects reaching a clinical test stage close to the

realization of practical use. It also conducted 13 unique joint research projects.

- iii) Human resource development [Project No. 27]  
In AY2017, three awards were granted to students supervised by the teachers of this Institute (two awards for the Young Researchers Poster Award during an international symposium and one excellent poster award during a symposium in Japan).
- iv) Activities to provide information [Project No. 27]  
Research results and information on exercise sessions and lectures were communicated via the website of the Institute and via the website of the Graduate School of Advanced Study of Matter, where Institute teachers concurrently serve as teachers. The newsletter (annual, 216 copies) and the annual research report (annual, 177 copies) were distributed to related parties at and outside the University.
- (ii) Unique activities and achievements of the Research Institute for Nanodevice and Bio Systems**
- i) Research results [Project No. 27]  
The following is an outline of research activities that are expected to be put into practical use in the near future, among many research results:
- The research project on "techniques to measure distribution of complex permittivity for breast cancer screening" proposed by the Institute was selected by the Japan Agency for Medical Research and Development (AMED). In AY2017, it developed a new portable breast cancer testing device that uses radio waves free of X-ray exposure. This achievement was reported in newspapers and NHK Online news.
  - A system to recognize cancer in the large bowel automatically and in real time from video images captured by a large bowel endoscopy was created and has been used in clinical experiments. The results of the development and the clinical experiments were presented in a press release and at many exhibitions.
  - The results of joint research with Osaka University, under the title "GeSn near-infrared image chip by laser crystallization", was selected and highlighted as a highlight paper at IEDM 2017, a prestigious international conference.
- ii) Expansion of international joint research network [Project No. 27]  
The Institute concluded inter-department exchange agreements with one institution: University of Moratuwa (Sri Lanka). Combined with the 11 agreements concluded in the past, the Institute now has inter-department exchange agreements for international joint research projects with 12 institutions (13 research departments).
- iii) Development of young human resources [Project No. 27]  
The Institute contributed to human resource development through the following projects: three programs of practice and training implemented under the Nanotechnology Platform of MEXT; trial creation of solar cells and measurement in the "Liberal Arts Seminar" for first-year students; and a high school student internship (3 weeks). It also invited five students from the University of Moratuwa to participate in integrated circuit fabrication training (for six days).
- iv) International workshops [Project No. 27]  
On March 2, 2018, the Institute hosted the International Nanotechnology Workshop. Five world-leading researchers (from the U.S, and other countries) and three researchers in Japan were invited to the workshop to have active discussions. On November 7, 2017, it hosted an international workshop on a breast cancer testing device, inviting researchers from the National University of Ireland.

- v) Activities under the MEXT Nanotechnology Platform [Project No. 27]  
To promote technical support and joint research on a nationwide scale, the Institute provides support to nearly 50 projects each year. Starting from 2012 and until 2021, as one of 16 microfabrication platforms in Japan, the Institute provides its advanced processing equipment for open use to external organizations. In AY2017, it provided support to 51 projects, the highest number ever.
- vi) Collaboration with local industries [Project No. 27]  
The Institute implements collaborative research activities with five local companies, including Phenitech Semiconductor Corp., a major member company of the Bingo Semiconductor Technology Consortium in the Chugoku Region, and Mazda Motor Corporation. With Mazda, the Institute has been developing a new highly efficient motor control device for electric vehicles.
- vii) Acquisition of external funds [Project No. 27]  
The external funds acquired in AY2017 for scientific research, contract research, joint research and other research activities totaled 126,150,000 yen. This is about 13% higher than the external fund acquired in AY2016 (111,780,000 yen).
- viii) Self check and external evaluation [Project No. 27]  
In AY2016, the Institute conducted a self-check and received an external evaluation for the period from the opening of the Institute (AY2008) to AY2016. It received a positive evaluation for responding to the needs of society and having high originality.

#### (9) Activities of educational joint usage centers

The Training and Research Vessel "TOYOSHIO MARU" and the Takehara Marine Science Station of the Setouchi Field Science Center were designated by MEXT as educational joint usage centers for five years from AY2012 to AY2016. In AY2017 the designation was renewed upon our request for renewal. The renewed designation will remain effective for five years from AY2017 to AY2021.

The Saijo Farming Station of the Setouchi Field Science Center has been designated as an educational joint usage center for five years from AY2015 to AY2019.

#### Training and Research Vessel TOYOSHIO MARU

Two mix-boarded field work programs were provided to students from non-fishery or marine universities. Twenty-three students from other universities took these programs.

HU also offered the TOYOSHIO MARU for use by other universities for their own field work programs. The vessel was used by three programs of other universities: the "Oceanographic Survey Field Work" of the Faculty of Agriculture and Marine Science of Kochi University; the "Ecology Field Exercise" of the Faculty of Life Science and Biotechnology of Fukuyama University; and the "Environmental Science Practical Field Work" of the Faculty of Agriculture of Kagawa University. A total of 71 people used the vessel under these programs of other universities.

In some of HU's own field work programs, mixed boarding was also offered to students from other universities and outsiders if there were vacancies in programs. A total of 153 people from outside participated in 30 voyages (20 voyages for teaching practice programs, 9 voyages for investigation field work programs and one voyage for a social contribution program).

By using a questionnaire, HU asked these students and teachers to evaluate the joint use of the vessel for educational programs. The programs received positive comments, such as "The subject was very interesting," "I think you should continue this program next year and after," and "I will recommend this program to my younger friends."

Opinions expressed in the questionnaire were examined to reflect them in the continued improvement of the quality of the education, including modification of the schedules of field-work voyages requested by participants. Details of each field work voyage, including joint and shared use of the vessel, are published on the website of the TOYOSHIO MARU to encourage joint use of the vessel.

#### Saijo Farming Station, the Setouchi Field Science Center

The Saijo Farming Station provided six field work programs for students from other universities, exchange students from South East Asia and adults, which were participated in by 131 people.

In the questionnaire survey conducted every year, participants have expressed positive opinions, such as "I discovered the comprehensiveness and fun of field science," "It was an opportunity to think about the relationship between food and agriculture," and "It was an opportunity to think about the relationship between food and life." Again, in AY2017, the number of applicants to these programs far exceeded the enrollment limits. Students from the Kansai and Kanto areas also took these programs, not only students in the Chugoku/Shikoku areas. The farming station fulfilled its function as a national educational joint use center.

In addition to the six field work programs mentioned above, the farming station also provided field work sessions to about 40 students from universities specialized in partner animals and laboratory animals (such as schools for laboratory animal managers, veterinary technicians, trimmers and animal trainers) and students from animal-related vocational schools to provide them opportunities to learn about farm animals they don't handle in their classes.

As part of the Super Science High School program, the farming station has also continuously given educational guidance to students from Hiroshima Prefectural Saijo Agriculture High School (about ten students each year).

The farming station also offered educational tours and work experience to kindergartens, elementary schools, and junior and senior high schools as requested (about 190 students each year).

The website of the Setouchi Field Science Center (Graduate School of Biosphere Science), in which the webpage of the farming station is included, was renewed and information on the "educational joint use center" was also modified to encourage the use of the farming station.

#### Takehara Marine Science Station, the Setouchi Field Science Center

The Takehara Marine Science Station provided three intensive field work and lodging programs to a total of 40 students from other universities. The "Satoumi Field Work" program was so popular that we had to select participants from applicants exceeding the enrollment limit. In all programs, many participants gave positive comments in the questionnaire after the program, such as "I discovered the comprehensiveness and fun of field science," "My understanding of agricultural science was deepened, and my vision was expanded," and "I was motivated to work on my studies." Because of their popularity, the number of applicants has been increasing.

The station was actively offered for joint use and public use by both Japanese and foreign institutions. It was used for field work and exercise programs of both Japanese and foreign educational institutions. It was also used for investigation and research activities of research

institutions, aquariums and a wide range of organizations.

It provided a total of 12 community awareness programs for a wide range of children, from elementary to senior high school children, comprising field activities, exercises and lectures. In particular, the station has cooperated in the high school-university collaboration program. It has been used for activities of the Super Science High Schools Program since AY2012 and activities of the Global Science Campus Program since AY2015. The station provided comprehensive support to their activities, including field research, collection of natural life forms, sorting of data, and presentation practice.

## **2. Operations and financial conditions**

### **(1) Objectives relating to improvement of operation and efficiency**

Please refer to special notes on pp. 39, 40 and 41.

### **(2) Objectives relating to improvement of financial conditions**

Please refer to special notes on pp. 44 and 45.

### **(3) Objectives relating to self-check/evaluation and provision of information**

Please refer to special notes on pp. 49 and 50.

### **(4) Objectives relating to other operation-related matters**

Please refer to special notes on pp. 54, 55 and 56.

## 3. Actions for "Strategic and Ambitious Objectives and Plans"

Unit 1	Actions to Become a Top 100 University in the World University Ranking	
Medium-Term Objectives [1]	Develop educated people who can play active roles globally in identifying and solving unforeseeable problems for humankind and in pursuing peace, with their advanced knowledge and abilities.	
	Medium-Term Plan [1]	The numbering of curricular subjects and English translation of syllabuses, which started in the Second Medium-Term Period, should be further expanded to all subjects in order to establish an internationalized education system.
	Plan for AY2017 [1]	Verify the numbering of curricular subjects and the presentation method of syllabuses, and improve the access to syllabuses for foreign viewers.
	Progress	<ul style="list-style-type: none"> <li>Following AY2016, we achieved numbering and input (English translation) of all syllabuses (April 2017).</li> <li>Aiming to achieve numbering and input of all syllabuses (English translation) in AY2018, we have set a target of achieving about 90% as of the end of AY2017. In fact, as of the end of AY2017, we achieved this target. Input of 92.27% of syllabuses in Japanese was completed and input of 91.92% of syllabuses in English was completed.</li> <li>The structure of the numbering and how the syllabuses were presented were verified. As a result, we found inconsistency between the "Semester/Term" of the subject and the "Course Level" in the numbering for some syllabuses. We urged the relevant undergraduate departments and graduate schools to correct this inconsistency via the Curriculum Committee of the Headquarters for Education.</li> <li>To improve the access environment for syllabuses for foreign viewers, we improved the website structure so that English syllabuses can be viewed from the HU official websites in the Chinese, Arabic and Spanish languages.</li> </ul>
	Medium-Term Plan [2]	To realize globalized education, all undergraduate schools should introduce degree courses all taught in English by AY2019 and verify their effectiveness for the globalization of students.
	Plan for AY2017 [2]	Make preparations for the advance start of degree courses all taught in English in some undergraduate schools in AY2018, and conduct deliberation, aiming to implement full-scale adoption in all departments in AY2019.
	Progress	<ul style="list-style-type: none"> <li>In August 2017, the University obtained approval from the Ministry of Education, Culture, Sports, Science and Technology for the establishment of the Department of Integrated Global Studies, the School of Integrated Arts and Sciences, which offers a degree program consisting of only subjects taught in English. The purpose of this department is to develop people capable of thinking about various problems in the international community from a global viewpoint, open to the differences of nations, ethnicities, cultures and religions, and of cooperating with others. With the basic philosophies of "interdisciplinary thought," "global perspective," and "ability to act cooperatively," from April 2018, the department will start classes in which students from various countries and from various language backgrounds learn together, actively engaging in group discussions and active learning, and using English as a common language.</li> <li>As a part of the preparation for accepting foreign students, in AY2017, detailed descriptions of major subjects were created. To ensure that enrolled foreign students understand the attainment target-type education program (HiPROSPECTS) of the University, creation of English versions of the Student Guidebook and the New Student Guidance Slide Presentation was completed.</li> <li>Besides the School of Integrated Arts and Sciences, five undergraduate schools established diploma policies for a total of 15 programs, aiming to introduce them in AY2019: one program in the School of Law, one in the School of Economics, one in the School of Science, 11 in the School of Engineering and one in the School of Applied Biological Science. Other undergraduate schools also continued deliberation, aiming to start their programs in AY2019. Moreover, the General Education Control Department in the Headquarters for Education started the development of liberal arts curricula taught in English for individual undergraduate schools, based on the liberal arts curriculum in the Department of Integrated Global Studies, the School of Integrated Arts and Sciences.</li> </ul>
	Medium-Term Plan [3]	Train students to acquire the communication and presentation skills required in a globalized society. To achieve this objective, HU should add and expand subjects taught in English and special training programs for developing professionals with English skills. In addition, periodic English proficiency measurements should be conducted, aiming to bring about 25% of all undergraduate school students up to the level of TOEFL® i BT80.
	Plan for AY2017 [3]	To attain the target to bring about 25% of all undergraduate school students up to the level of TOEFL® i BT80 by AY2019, the special program "Global Peace Leadership Program" should be established to improve the English proficiency of students. By periodically measuring students' English abilities by TOEIC and analyzing their results, HU should consider effective programs to further improve the English abilities of students.



<p style="text-align: center;">Progress</p>	<ul style="list-style-type: none"> <li>• To develop “globally competent people who pursue peace with their international education,” the University introduced a special program, the “Global Peace Leadership Program,” in FY2017 to help students to deepen their understanding of the Japanese culture and peace and to acquire English abilities, abilities to identify and solve problems in a multicultural society, leadership, and career path development. HU receive 44 enrollment applications for this program, and selected 18 students by document screening and interviews. In June 2017, the opening ceremony of the program was implemented. The program has progressed efficiently. In October, personal tutoring was provided to the 18 students for consultation about the study plan for the fourth term and after and consultation about preparation for study abroad programs. In AY2017, eleven students achieved a score of 730 or higher in the TOEIC® test. The scores of most of the other students are also steadily improving.</li> <li>• In AY2017, HU introduced the liberal arts subjects “Communication Seminar I and Communication II,” with the objective for enrolled students to achieve a score of 730 points in the TOEIC® test. We compared the scores of 199 students who took Communication Seminar I and took the TOEIC® L &amp; R IP test for both the May and July tests, and confirmed the effectiveness of the program. The average score in the July test improved by about 100 points, and 78 students whose scores in the May test were lower than 730 marked scores higher than 730 in the July test. Among the students who took “Communication Seminar II,” 34 students whose score in the July test was lower than 730 achieved 730 or higher in the November test. As these programs were proved to be effective for improving the English abilities of students, we decided to continue these programs in AY2018.  We also examined the average score of 128 students who took all of the TOEIC® L &amp; R IP tests conducted in May, July and November. Their average improved by 97.7 points in the July test compared with the May test. Their average improved by 53 points in the November test compared with the July test. It was confirmed that the scores of all students who took the program improved.  Of all the students who took the “Communication Seminar I and II” programs in AY2017, 113 students (51% of all students) achieved a score over 730 in the TOEIC® L &amp; R IP tests. These results show the effectiveness of these programs.</li> <li>• To improve the skills of students to communicate in English and to help them to achieve a score of 730 in the TOEIC® tests, HU offered the “TOEIC® Skill Up Class” as a non-curricular program from middle of June to middle of November 2017.  To verify the effectiveness of the TOEIC® Skill Up Class, HU required all the students who took the program to take the TOEIC® L &amp; R IP test conducted on November 19, 2017. In fact, 64.4% of the students took the test. Out of 121 students who took the TOEIC® Skill Up Class and took the TOEIC® L &amp; R IP test in November, 24 students achieved scores higher than 730. Because it was also confirmed that many of the students who attended 70% or more of the classes improved their scores, we decided to continue this program in AY2018.  HU offered the “TOEIC® Skill Up Course” and the “Global Communication Course” by level of English abilities of students. Each course comprised 30 sessions. The TOEIC® Skill Up Course was designed for students with an English proficiency level of Grade 2 of the Practical English Proficiency Test (Eiken) or a 550 TOEIC® score, with the objective to achieve improvement of the TOEIC® scores of the enrolled students by 100 points or more. The Global Communication Course was designed for students with English proficiency levels of Grade 2 and Grade Pre-1 of the Practical English Proficiency Test (Eiken) or a 650 TOEIC® score, with the objective to help students to acquire a high English proficiency level through conversation lessons with native teachers so that they can discuss a wide range of topics, from daily conversation to politics and economics. The Higashi-Hiroshima Campus provided a total of four classes (two classes on Thu. and two classes on Fri). The Kasumi Campus provided two classes on Wed. There were 137 applicants to the programs on the Higashi-Hiroshima Campus and 31 applicants on the Kasumi Campus.</li> <li>• To improve TOEIC® scores of students and their skills to communicate in English, HU conducted the “Short Study Abroad Experience on Campus” program (a program to experience language training classes of a study abroad program on HU campuses) at the beginning of August and at the end of September 2017 on both campuses. For the August program, there were 40 applicants on the Higashi-Hiroshima Campus and 16 applicants on the Kasumi Campus. For the September program, there were 41 applicants on the Higashi-Hiroshima Campus and 10 applicants on the Kasumi Campus.</li> <li>• HU has introduced the English conversation training application “MyET.” It is a self-learning tool for improving the pronunciation and speaking abilities of students to supplement contents that cannot be sufficiently covered by the curriculum classes. In AY2017, 1,052 students used MyET, an increase of 210 users from 842 in AY2016, indicating that students who are interested in improving their English abilities have increased. The Institute for Foreign Language Research and Education offers the online English learning program “NEXT” (comprising the General English Training Course and the TOEIC® L &amp; R Test Course, a total of five courses). A total of 619 students enrolled in the program for the period from April to September (559 undergraduate students, 57 graduate students and 3 other students). The number of students enrolled in the program for the period from October to March increased to 751 (696 undergraduate students, 54 graduate students and 1 other student).</li> <li>• In AY2017, the percentage of students who reached the TOEFL® i BT80 level was 8.3% (901 students/10,818 students in total).</li> </ul>
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Medium-Term Objectives [2]	Develop experts who can play active roles globally in identifying and solving unforeseeable problems for humankind and in pursuing peace, by creating values based on their advanced knowledge.	
Medium-Term Plan [7]	Introduce degree courses all taught in English in all graduate schools, targeting an increase to 66 courses by AY2019, to develop experts with advanced knowledge who can play active roles in modern society, by providing a globalized graduate school education. Results of these programs should be verified.	
	Plan for AY2017 [7]	Add degree courses all taught in English and verify the results of the existing degree courses in light of their intended purposes.
	Progress	<ul style="list-style-type: none"> <li>As of April 2017, there were a total of 62 degree courses that could be completed only by credits from subjects taught in English.</li> <li>In January 2018, the University asked each graduate school that offers a degree course that can be completed only by credits from subjects taught in English to examine the results (the number of enrollments and the number of students who completed the course) and the preparation status for AY2018. As a result of the examination, the total number of enrollments during the period from AY2015 to AY2017 was 835 students, and the total number of students who completed these courses was 581 students. As of April 2018, a total of 69 courses were offered.</li> </ul>
Medium-Term Plan [8]	Develop researchers and experts who can work independently with the communication and presentation skills required in a globalized society. To achieve this objective, HU should encourage students to make presentations at international academic conferences. HU should also add and expand degree courses all taught in English. By these programs, HU should bring about 30% of all graduate school students up to the level of TOEFL® iBT86.	
Plan for AY2017 [8]	To achieve the target to improve the English abilities of about 30% of graduate students to the TOEFL® iBT86 level by 2019, by taking into account the specialty of their major fields, and to help them develop into globally competent and independent persons, HU should encourage graduate students to present their research results at international conferences. The University should also continue the non-curricular TOEIC skill up classes to improve their English proficiency. And based on the results of the measurement of English abilities of graduate school students, it should consider effective programs to further enhance their English abilities.	
Progress	<ul style="list-style-type: none"> <li>To improve the skills of students to communicate in English and to help them to achieve a 730 score in the TOEIC® tests, HU has offered two classes of the “TOEIC® Skill Up Class” by level of English abilities of students, as a non-curricular program, from middle of June to middle of November 2017. Each class comprised 30 sessions. The Higashi-Hiroshima Campus provided a total of four classes (two classes on Thu. and two classes on Fri). The Kasumi Campus provided two classes on Wed. There were 42 applicants to the programs on the Higashi-Hiroshima Campus and 10 applicants on the Kasumi Campus.</li> <li>The Curriculum Committee of the Headquarters for Education thoroughly communicated to graduate schools that graduate students could take the all-department TOEIC® IP test implemented in May and November free of charge. As a result, 332 graduate students took the May test (including 63 students who achieved the TOEFL iBT86 level (TOEIC® 780 points)), and 348 graduate students took the November test (including 48 students who achieved the TOEFL iBT86 level (TOEIC® 780 points)).</li> <li>To improve TOEIC® scores of students and their skills to communicate in English, HU conducted the “Short Study Abroad Experience on Campus” program (a program to experience language training classes of a study abroad program on HU campuses) at the beginning of August and at the end of September 2017 on both campuses. For the August program, there were 18 applicants on the Higashi-Hiroshima Campus and 5 applicants on the Kasumi Campus. For the September program, there were 11 applicants on the Higashi-Hiroshima Campus and 6 applicants on the Kasumi Campus.</li> <li>HU has introduced the English conversation training application “MyET.” It is a self-learning tool for improving the pronunciation and speaking abilities of students to supplement contents that cannot be sufficiently covered by the curriculum classes. In AY2017, 519 students used MyET, an increase of 78 users from 441 in AY2016, indicating that students who are interested in improving their English abilities have increased. The Institute for Foreign Language Research and Education offers the online English learning program “NEXT” (comprising the General English Training Course and the TOEIC® L &amp; R Test Course, a total of five courses). A total 619 students enrolled in the program for the period from April to September (559 undergraduate students, 57 graduate students and 3 other students). The number of students enrolled in the program for the period from October to March increased to 751 (696 undergraduate students, 54 graduate students and 1 other student).</li> <li>From the end of September to November 2017, the University conducted a language ability questionnaire survey with graduate students regarding their English proficiency. A total of 557 students responded to the questionnaire. Of these respondents, 115 students responded that their TOEIC® scores were 780 or higher. Based on the results of the survey, HU started consideration of programs to further improve their English abilities.</li> </ul>	
Medium-Term Objectives [5]	Promote global standardization of education in collaboration with other universities to improve the quality of education, and reinforce the campus-wide system for global standardization.	

	Medium-Term Plan [12]	Based on the attainment target-type education program implemented in the Second Medium-Term Period, to pursue global standardization of education and improve the quality of education, HU should improve its internal education evaluation systems for undergraduate and graduate schools under the supervision of the Education Promotion Organization, and improve the internationality of the education system based on these evaluations. It should also receive international evaluation of its educational quality assurance systems by the SERU (Student Experience in the Research University), an international consortium of universities.
	Plan for AY2017 [12]	Conduct self-check and evaluation of education in undergraduate and graduate schools. Based on the results of the verification of the internal educational quality assurance system, HU should develop improvement measures for undergraduate schools to realize world-class education, by taking into account the activities of the Student Experience in the Research University (SERU).
	Progress	<ul style="list-style-type: none"> <li>• In the internal educational quality assurance system of Hiroshima University, undergraduate and graduate schools conduct self-check and evaluation as a part of the preparation of an annual report. The Committee of Educational Quality Assurance verifies the appropriateness of their self-check and evaluation and reports the results of the verification to individual undergraduate and graduate schools. Then, based on the results of the verification, undergraduate and graduate schools make improvements to their educational programs and systems and report the results of their improvement activities to the Committee of Educational Quality Assurance in an improvement report. Finally, the Committee of Educational Quality Assurance checks the improvement reports to confirm the results of improvements.</li> <li>• In AY2017, undergraduate and graduate schools conducted self-check and evaluation of their education during AY2016. The Committee of Educational Quality Assurance created a report of the evaluation results.</li> <li>• Regarding utilizing the SERU data for self-check and evaluation of undergraduate schools, HU decided to use the SERU student survey results, in addition to the common data that are used as evidence of self-check and evaluation (the percentage of students who proceeded to graduate schools, the percentage of credit acquisition, etc.), for self-check and evaluation of undergraduate schools in and after AY2017.</li> <li>• In June 2017, members from the main universities comprising the SERU consortium conducted a peer review of the attainment target-type education program (HiPROSPECTS) developed by Hiroshima University. Based on the proposals presented by the reviewers, HU will strive to develop HiPROSPECTS into a world-class program and improve the quality of education.</li> </ul>
	Medium-Term Objectives [6]	Expand support to students with various needs (including foreign students, adult students and students with disabilities) and create and improve the learning environments for these students.
	Medium-Term Plan [14]	Introduce a new "pre-enrollment scholarship program" by AY2019. In this program, scholarship students are selected based on the results of admission examinations conducted at overseas satellite centers of the University. The results of the scholarship screening will be notified to the foreign students before they come to Japan. Expansion of financial support to students should be considered, including the number of students who receive scholarships and the amount and the duration of the scholarships.
	Plan for AY2017 [14]	Implement a new "pre-enrollment scholarship program," in which the results of the screening for the scholarship are notified to foreign students before they come to Japan.
	Progress	The Pre-Enrollment Scholarship Program was started in AY2017. For the spring program that would start the scholarship payment in April, it was decided to grant the scholarship to three students recommended by three graduate schools. Subsequently, the contents and the operation of the Spring program were reviewed to prepare for the Autumn program that would start in October. In the review, it was confirmed that the contents of the Spring program had no particular problems and the program has been operated as planned. At the beginning of September, HU started solicitation for the Autumn program, and decided to grant the scholarship to three students recommended by three graduate schools. Based on the results of the verification of the contents and the operation of the program for AY2017 (Spring and Autumn), it was decided that information on this program for AY2018 would be posted on the HU website and in other publications so that more applicants, including applicants under the Pre-Arrival Admission system, would be aware of this scholarship program. As for the Spring 2018 program, HU announced the solicitation at the end of January and decided at the end of March to grant the scholarship to two students recommended by two graduate schools. Combined with the three students who are receiving the scholarship under the Autumn 2017 program, during Spring 2018, a total of five students are receiving the scholarship.
	Medium-Term Objectives [7]	Introduce a new screening system to accept excellent Japanese and foreign students with diverse backgrounds from within and outside Japan.
	Medium-Term Plan [18]	For the AO admission examination, all undergraduate schools should use internationally recognized English qualification/proficiency tests that measure the 4 English skills (reading, listening, writing and speaking) to evaluate applicants' abilities by the time of the admission screening for AY2017. In addition, these English tests should be used for the regular admission screening of all undergraduate schools by the time of the admission screening for AY2019 to promote admission of globally competent students.

	Plan for AY2017 [18]	All undergraduate schools of the University have adopted English qualification/proficiency tests that measure the 4 English skills (reading, listening, writing and speaking) for the AO admission examination. The results of the use of these tests and problems identified should be examined based on the improvement of students' abilities to use English after their enrollment and utilized for the improvement of the school admission screening.
	Progress	<ul style="list-style-type: none"> <li>• HU analyzed the English abilities of students who were admitted to HU in AY2017 by the AO admission screening using third parties' English proficiency tests (mainly "Eiken"), by comparing their scores in the TOEIC test they took after their enrollment with those of other students enrolled in AY2017. The results of the analysis showed that students admitted by the screening that used third parties' English proficiency tests generally achieved higher TOEIC scores than other students admitted by screening that did not use these tests. Based on this analysis, the Admission Screening Committee judged that the use of third parties' English proficiency tests is effective and decided to continue to use these tests as a part of the admission screening.</li> <li>• For the admission of students in AY2019 (the screening will be conducted in AY2018), HU will adopt the "Deemed Full Marks" system for the English language examination. In this system, if an applicant has a score of a third party's English proficiency test that satisfies the standard designated by the University, when the applicant takes admission examinations of the University, which requires the results of the National Center for University Entrance Examinations (i.e. regular screening, AO screening and screening with commendation), the applicant is deemed to have received full marks in the English language examination. There are undergraduate schools that have already utilized scores of third parties' English proficiency tests for their AO admission screening, such as giving additional points based on the score of such English proficiency test. As the Full Marks system will be introduced, the University considered the treatment of these undergraduate schools in and after the admission screening for AY2019 (whether they should continue to use the existing system or change to the Full Marks system). As a result of deliberation, it was decided that all these undergraduate schools that have already utilized their systems should continue to use their own systems.</li> </ul>
	Medium-Term Plan [19]	Develop an online application system in English which includes the functions to upload an application, organize a portfolio and process applications seamlessly from submission of application documents to admission to the University, in order to solicit excellent students from other countries. By AY2020, the developed online system should be introduced in all graduate schools. In addition, all graduate schools should conduct admission examinations at overseas satellite centers of Hiroshima University.
	Plan for AY2017 [19]	Verify the effectiveness and problems of the online application system in English with the upload function adopted by some graduate schools. Based on the results of the verification, the system should be improved.
	Progress	In the admission screening of graduate schools for AY2017 (the screening was conducted in AY2016), the "Taoyaka Program for Creating a Flexible, Enduring, Peaceful Society" (one of the programs for leading graduate schools) and the Graduate School of Letters adopted an online application system with an English interface and an upload function (upload of an application in the PDF format). HU examined the effectiveness of this system. There was no inquiry from applicants about how to use this system, and HU also operated the system smoothly with no difficulties. Thus, it was verified that the system had no problems.
	Medium-Term Objectives [8]	Promote free and highly creative research activities, strengthen the ability to make presentations of HU's characteristic research activities in international society, and collaborate with other research institutions in and outside Japan, to achieve top-level research results in the world.
	Medium-Term Plan [22]	Strive to become a world Top 100 comprehensive research university. To achieve this goal, good environments for research activities should be created, including deployment of University Research Administrators (URAs), technical staff members and other research management staff members who provide administrative support for research activities so that researchers can concentrate on research activities. The number of published papers should be increased by about 1.5 times from the number as of the end of the Second Medium-Term Period, by retaining excellent researchers. Increase the number of Top 1% and Top 10% cited papers. In the humanities and social science fields, books and papers deserving of important academic prizes should be published. Strengthen international research activities through joint research activities and researcher exchanges with foreign institutions. The number of papers authored jointly with foreign researchers should be double the number as of the end of the Second Medium-Term Period.
	Plan for AY2017 [22]	In striving to become a World Top 100 comprehensive research university, conduct activities to enhance the research ability of the University, based on the results of the self-check and evaluation of the previous year's activities, which will result in improvement in the number of published papers and other research result indicators

	Progress	<ul style="list-style-type: none"> <li>In AY2017, the interim evaluation of the “Program for Promoting the Enhancement of Research Universities” of MEXT was conducted. In preparing reports to be submitted for this interim evaluation, HU implemented IR analysis and self-check regarding activities it conducted to enhance its research abilities during the past four years. As a result, HU added a new objective as the fifth objective: organization-level collaboration with companies, and enhancement of the function to match research seeds with social needs.</li> <li>In April 2017, HU established the new long-term vision “SPLENDOR PLAN 2017.” Based on its concept, “Establishment of a Worldwide Research and Education Center Leading Science for Sustainable Development,” HU included the following five strategies and five enhancement policies in the future vision of the report for interim evaluation. Following these strategies and policies, HU has continuously conducted effective activities to further strengthen its research abilities.</li> </ul> <p>Strategy 01: Strengthen the organizational foundation, Enhancement policy 01: Utilize a high IR function and develop excellent URAs            Strategy 02: Form a center of communities, Enhancement policy 02: Evolve into an international and integrated interdisciplinary research center            Strategy 03: Enrich the human resources, Enhancement policy 03: Develop young researchers and human resources for innovation research            Strategy 04: Strengthen the communication of information to the international community, Enhancement policy 04: Expand the network to accelerate international joint research activities            Strategy 05: Strengthen the collaboration with industries and the community, Enhancement policy 05: Promote social collaboration based on “glocal” cooperation</p> <ul style="list-style-type: none"> <li>In AY2017, HU focused on reinforcement of collaboration between departments under the leadership of the Executive in Charge of Research, which led to activities to strengthen the ability to conduct effective research activities. Each department established a research promotion committee, deployed URAs in charge of individual research projects and appointed a teacher in charge of industry-academia collaboration as a contact person, to promote sharing of understanding of research strategies across the University and to identify problems of individual departments and fields. (Ex. the number of papers at the Graduate School of Engineering increased from 556 papers in FY2016 to 728 papers in FY2017 (an increase of 172 papers))</li> <li>As a result of continuous activities based on these strategies and enhancement policies, HU ranked 321st place in the QS World University Ranking (a rise of 1 place from AY2016).            The number and percentage of papers co-authored with foreign researchers increased significantly from 715 papers (31.9%) in AY2016 to 737 papers in AY2017 (33.2%).</li> </ul>
Medium-Term Objectives [9]		Strengthen the research management function to properly evaluate research activities and provide efficient support to research activities in key fields.
	Medium-Term Plan [23]	By using its unique Achievement-motivated Key Performance Indicators (AKPI®) that evaluate personal performance of teachers and monitor the performance of the educational and research activities at HU, HU should conduct proper evaluation of its research activities. It should decide key research fields it will focus on and should strategically allocate researchers and staff members to these research fields.
	Plan for AY2017 [23]	Evaluate the research activities and intensively assign researchers mainly to strategic fields that HU places emphasis.
	Progress	<ul style="list-style-type: none"> <li>In AY2017, HU established the Basic Effort Key Performance Indicators (BKPI®), in addition to its unique achievement-motivated key performance indicators (AKPI®). By using these two indicators, HU now is able to monitor all educational and research activities of teachers and grasp its abilities as a university. It also started the development of the C-KPI (Common Key Performance Indicator) with Ehime University, Tokushima University, and Yamaguchi University. We aim to contribute to establishment of a national indicator model, anticipating that the use of this indicator will realize the standardization of the management of education and research performance and efforts.</li> <li>In AY2017, following AY2016, using AKPI® and other indicators, HU continued to conduct evaluation of research activities of self-sustained research centers and incubation research centers that are engaged in research activities in strategically important fields. It also implemented strategic and systematic personnel allocation from a holistic viewpoint for the entire university beyond the borders of educational and research organizations.</li> </ul>
Medium-Term Objectives [12]		Pursue complete “globalization” of the entire University to realize world-class quality education and strengthen its world competitiveness, aiming to become a TOP 100 university in the World University Ranking.
	Medium-Term Plan [30]	Implement internationalization of degree programs and active recruitment of foreign students, aiming to increase the percentage of foreign students to over 12% of all students. Increase the percentage of Japanese students with study abroad experience to over 8% of all students. To achieve this objective, HU should encourage students who participated in the START program (a short-stay-abroad program for students in the first year) and other short-stay programs to participate in longer-period study abroad programs.

<p>Plan for AY2017 [30]</p>	<p>To increase the percentage of foreign students among all students from the previous year, measures for increasing foreign students should be reviewed and improved based on the verification results of measures taken in the previous year, such as the meetings to explain its study abroad programs. Increase the percentage of Japanese students with study abroad experience from the previous year by reviewing and improving the START program and other study abroad programs for Japanese students to match the various needs of students.</p>
<p>Progress</p>	<p>Quantitative expansion was promoted while maintaining the quality of the study abroad programs. As a result of this effort, the percentage of foreign students among all students reached 11.0% (as of May 1, 2018), and the percentage of Japanese students sent to foreign universities reached 4.4% (during AY2017).</p> <ul style="list-style-type: none"> <li>• Development and utilization of a Japanese version of the BEVI test (an attribute test measuring adaptability to different cultures) As the Japanese version of the BEVI test (BEVI-j), developed and introduced in AY2016, enables objective and direct evaluation of study abroad programs, it attracted attention of many universities. HU implemented a total of 22 sessions of workshops in AY2017, which were participated in by a total of about 400 participants from about 120 universities, companies and organizations. <u>By the end of AY2017, eight national/public universities, including Kansai University, Tsukuba University, Sophia University and Ryukoku University, adopted the BEVI-j test.</u> Many other universities are also considering the adoption of the test. HU started to provide the English version of the revised BEVI test to affiliated overseas universities. The University Rovira i Virgili in Spain and Malmö University in Sweden are considering adoption of the test. In AY2017, for over 20 study abroad programs, HU conducted about 1,500 tests with students before and after completing these programs. The test results were statistically processed, and an evaluation report was created that analyzed characteristic distribution of numerical data for 12 programs and made other analyses. The report was provided to the program coordinators so that it could be utilized for evaluation and improvement of the programs. Against the background that emphasis is placed on the connection between education in super global high schools (SGHs), super science high schools (SSHs) and the University, <u>the University developed a BEVI-j test for high school students</u> to enable long-term effective measurement of study abroad programs, language programs and cross-culture learning programs of the high schools (the measurement is conducted twice, during high school time and after enrollment in universities). <u>The test was made available to these high schools at the end of AY2017.</u></li> <li>• Reinforcement and expansion of overseas satellite centers In addition to the 14 overseas satellite centers established in twelve countries/regions by AY2016, <u>two satellite centers were added in AY2017 in two countries to further strengthen their functions.</u> To promote student and academic exchanges with universities in Europe, in May 2017, Hiroshima University established the Hiroshima University Lithuania Center within the Asia Research Center of Vytautas Magnus University (Lithuania) and the Hiroshima University Saarland Center on the campus of Saarland University (Germany). Taking this opportunity, HU will start to send students to Lithuania under the START + (PLUS) short-stay-abroad program in AY2018.</li> <li>• Expansion of the START short-stay-abroad program Since 2010, HU has offered the START Program, a short-stay-abroad program for the first year undergraduate students with little overseas experience. The University bears a portion of the costs incurred by program participants. <u>In AY2017, HU established a step-up program, the "START + (PLUS)," for students in the second and third years, which is more focused on development of linguistic abilities of students (one course, 26 participants). Eleven courses were provided under these two programs, and a total of 271 students were sent to eight countries (the number of applicants was 420).</u> The effectiveness of these programs was verified from the fact that the English ability of the participants in START improved after the program (TOEIC® scores improved by more than 25 points). And applicants to longer-period study abroad programs increased. The percentage of applicants to the HUSA short-term study abroad program, who had participated in START or START+ programs, increased from 7% in 2010 to 37% in AY2017.</li> <li>• Expansion of medium- and long-term student exchange programs <u>In AY2017, HU was selected as one of the implementers of the MEXT "Projects to Promote Globalization of Universities" and started the "International Linkage Degrees Program (ILDLP) for Social Deployment of Advanced Technologies" program, a student exchange program with universities in India that sends about 36 students each year bilaterally between Japan and India.</u> In AY2017, the University held discussions and a kick-off meeting with partner universities under this program, and implemented short-term student exchanges.</li> </ul>

	<p>As a part of the Project to Promote Globalization of Universities, the PEACE program and the AIMS-HU Program have been implemented. The PEACE Program is a bilateral student exchange program introduced in AY2016, and about 50 students a year are exchanged with universities in Cambodia, Myanmar, Laos, Vietnam and Thailand. The AIMS-HU Program has been implemented since 2013, and about 25 students a year are exchanged with universities in ASEAN countries. Through these programs, the University has promoted short-, medium- and long-term student exchange with universities in Asia with cross granting of curricular credits. For the AIMS-HU program, the subsidy from the government will end in AY2018. To continue the program in and after AY2018, HU made preparations, including securing of personnel and operating funds. HU has also offered various medium- and long-term student exchange programs to satisfy the diverse needs of students, and based on the abilities of students. It sent students to foreign partner universities under the HUSA (Hiroshima University Study Abroad) short-term student exchange program with credit transfer with partner universities, and under study abroad programs via university consortia, including the University Study Abroad Consortium (USAC) and the University Mobility in Asia and the Pacific (UMAP).</p> <p>Improvement of the organization of Morito Institute of Global Higher Education (3+1 Program)</p> <p>The Morito Institute of Global Higher Education (3+1 Program) accepts students in the fourth year from foreign undergraduate schools for three terms and provides them advanced education and Japanese language education necessary to proceed to graduate schools of HU. After completing bachelor courses in their respective home universities, these students will be admitted to graduate schools of HU to develop them into advanced experts in their specialized fields. As a result of thorough publicity activities, the number of enrolled students drastically increased in AY2017 [26 students in AY2016 → 90 students in AY2017 (an increase of 64 students)] [198 applicants in AY2018 as of May 2018].</p> <p>Furthermore, <u>to accept more foreign students mainly through this program, HU considered establishment of an organization that serves as a Japanese language/culture education center and as a contact point to accept foreign students. The present International Center was reorganized and the development of an organization was started, aiming at establishing the Hiroshima University Morito Institute of Global Higher Education (3+1 Program) in October 2018.</u></p> <ul style="list-style-type: none"> <li>• Provision of special Japanese language and culture study programs to motivate foreign students to study at HU        HU offered a short-stay program of about two weeks to foreign students who had interest in the Japanese language and culture. Participating students took classes at Hiroshima University, attended socializing events with Japanese students at HU, and visited companies in Hiroshima Prefecture to deepen their understanding of the Japanese language and culture. Since it was started in AY2010, the program has been expanded, by adding courses and accepting more students every year. In AY2017, 11 courses were offered and accepted 246 foreign students.  <u>In AY2017, the program accepted eight Chinese students with hearing disability for the first time on a trial basis, and training sessions incorporating special support education were conducted. Based on this experience, it was decided to consider a new program that accepts foreign students with disabilities to the Morito Institute of Global Higher Education (3+1 Program), which is scheduled to be established and open in AY2018.</u></li> <li>• Conclusion of inter-university exchange agreements        HU actively concluded exchange agreements with foreign universities. As of the end of AY2017, HU had 301 inter-university exchange agreements, an increase of 65 from 236 agreements in AY2016. HU aims to promote active student exchange with educational institutions in various countries and establish a hub structure for international joint research activities, by adding foreign partner universities.        In AY2016, HU established the Guanajuato Center in Mexico in accordance with the affiliation agreement with Guanajuato University. At the request of an affiliated university based on HU's experience in international industry-academia-government collaboration and student exchange, <u>HU hosted the third Japan-Mexico Presidents' Meeting in November 2017.</u> The meeting was participated in by about 150 representatives from 37 universities and organizations in Mexico and 30 universities and organizations in Japan. With the theme of "Collaboration for Innovation: Academy, Industry and Government working together," they discussed industry-academia-government collaboration, collaboration in research projects and student exchanges, and deepened the exchange between Japanese universities and Mexican universities. By hosting this meeting, HU greatly contributed to the promotion of exchange between Japan and Mexico and expanded exchange with many Mexican universities.</li> </ul>
<p>Medium-Term Plan [31]</p>	<p>To respond to the globalization of education, HU should increase the percentage of teachers with foreign nationalities or teaching or research experience in foreign countries to 47% of all teachers. In addition, the percentage of administrative staff members with foreign nationalities or with working experience in foreign countries should be increased to 8% of all administrative staff members.</p>
<p>Plan for AY2017 [31]</p>	<p>To respond to the globalization of education, HU should increase the percentage of teachers with foreign nationalities or with teaching or research experience in foreign countries to 36.8% of all teachers, by personnel plans in accordance with the Teacher Deployment Policy. In addition, the percentage of administrative staff members with foreign nationalities or with working experience in foreign countries should be increased to 5.4% of all administrative staff members, by recruiting foreign staff members and sending Japanese staff members abroad for training.</p>

Progress	<ul style="list-style-type: none"> <li>The following personnel plans were implemented to promote the globalization of education at HU and to strengthen the function of the educational departments. As a result, <u>the percentage of foreign teachers and teachers with teaching or research experience in foreign countries as of May 1, 2018 was 41.1% (an increase of 0.8% from the previous year), significantly exceeding the target of 36.8%.</u> <ul style="list-style-type: none"> <li><u>International recruitment was completely implemented</u> to hire globally competent teachers with excellent educational and research abilities from and outside Japan.</li> <li>To put priority on recruitment of globally competent teachers in its personnel deployment plan, <u>HU continued the quota for "recruitment of foreign and globalized teachers"</u> when it submitted a personnel request.</li> </ul> </li> <li>Since AY2014, HU has continued to add foreign administrative staff members. In AY2017, one foreigner was employed as an administrative staff member (one was hired in AY2016). To increase administrative staff members with working experience in foreign countries, HU has sent one employee to the Long-term Educational Administrative Training Program (LEAP) of MEXT and one employee to the International Academic Exchange Training Program of the Japan Society for the Promotion of Science. After they return from the training program, one employee will be sent to each of these programs next year. As a result of these programs, <u>the percentage of administrative staff members with foreign nationalities or with working experience in foreign countries had reached 6.8% of all administrative members as of May 1, 2018 (an increase of 0.4% from the previous year), significantly exceeding the target of 5.4%.</u></li> </ul>
Medium-Term Plan [32]	<p>To promote global standardization of education, HU should increase subjects taught in foreign languages to about 30% of all subjects both in undergraduate and graduate schools. HU should also improve the Japanese language study program for foreign students. It should be redesigned and divided into classes according to the level of Japanese language skills to effectively improve the Japanese language skills of foreign students and deepen their understanding of Japanese culture.</p>
Plan for AY2017 [32]	<p>Add more degree courses taught in English to achieve the target to increase subjects taught in foreign languages to about 20% of all subjects both in undergraduate and graduate schools in AY2018. Based on the proposal created in AY2016 to divide the Japanese language program into classes by level of Japanese proficiency, HU should make preparations to develop new Japanese language classes by proficiency level which will be offered in AY2018.</p>
Progress	<ul style="list-style-type: none"> <li>The Curriculum Committee of the Headquarters for Education urged the expansion of graduate courses all taught in English. As a result, 5 courses taught in English were added in AY2017, totaling 62 courses. Participants in the "How to Teach in English" FD increased from 34 participants in AY2015 to 65 in AY2016 and to 109 in AY2017. <u>By these efforts, the percentage of subjects taught in foreign languages had reached 25.9% of all subjects of undergraduate and graduate schools as of April 2017, significantly exceeding the target of 20% for AY2018.</u> In AY2018, to further increase subjects taught in English, the School of Integrated Arts and Sciences, Department of Integrated Global Studies, will provide subjects taught in English, and new subjects and 36 liberal arts subjects (three peace education subjects, 30 area subjects and three foundation subjects) will be created.</li> <li>Redesigning of curriculum by Japanese proficiency level In AY2017, the Special Assistant to the President (in charge of Japanese language education) was newly appointed, who supervised the redesigning of the Japanese language study program for foreign students from a holistic viewpoint. The School of Integrated Arts and Sciences, Department of Integrated Global Studies, which was established in AY2018, requires students whose mother tongues are not Japanese to acquire 12 credits of Japanese language subjects. A curriculum corresponding to this requirement was developed. Classes were also added to accommodate the increasing number of foreign students, mainly in the Morito Advanced International Education School 3+1 Program. Consequently, in AY2018, 15 sessions were added to the curricular Japanese language subjects to accept more foreign students.</li> <li>Provision of online Japanese language programs To prepare for the reorganization and opening of the Hiroshima University Morito Advanced International Education School in AY2018, HU promoted Japanese language education by using ICT. It considered provision of online Japanese language training to foreign students before they come to Japan. The "Online Anytime Access Japanese Education System (MyJT)" that was introduced at the end of AY2016 was continued in AY2017. HU encouraged about 130 foreign students to use the system to learn before they came to Japan. To place students into classes by their proficiency level, HU also established a system in which foreign students take an online placement test to measure their Japanese proficiency before they come to Japan. This system will be implemented for foreign students who will come to Japan in April 2018. (As of April 2018, 315 students took the test and enrolled in appropriate Japanese language classes.) By using the online learning system, foreign students can start to improve their Japanese abilities before they come to Japan. By using the results of the Japanese language proficiency test before students come to Japan, HU can start the placement of foreign students earlier and efficiently operate the curriculum.</li> </ul>
Medium-Term Plan [34]	<p>By AY2019, encourage Japanese students (about 12% of all Japanese students at HU) to live in boarding houses with foreign students to promote cultural exchange in daily life and to nurture the internationality of Japanese and foreign students.</p>
Plan for AY2017 [34]	<p>Verify the occupancy of the university-leased mixed-boarding student houses</p>



	Progress	As of November 1, 2017, 1,532 Japanese students lived in mixed-boarding houses with 777 foreign students. To maintain the occupancy by foreign students while reducing the cost burden for the University related to boarding houses, HU established a new boarding house system (designated apartment house for foreign students system), and started the solicitation for April 2018. "Designated apartment houses for foreign students" are apartment houses owned and managed by the Hiroshima University Student Co-op for which living support for tenants is offered (holding an explanation meeting for new tenants, support for procedures to move in and out of the housing, and consultation in English). Foreign students can receive support in English from the student co-op while they occupy these apartment houses.
Medium-Term Objectives [20]		Improve the environment for stronger leadership by the President and allocate internal resources strategically by utilizing IR.
	Medium-Term Plan [46]	Transfer the management of labor costs of teachers from individual departments to central management in order to strengthen education and research abilities. Teachers and researchers should be strategically allocated, by using HU's unique Achievement-motivated Key Performance Indicators (AKPI®) and other methods that evaluate personal performance of teachers in educational and research activities.
	Plan for AY2017 [46]	Under the leadership of the President, teachers and researchers should be strategically allocated, by using HU's unique Achievement-motivated Key Performance Indicators (AKPI®), Basic Effort Key Performance Indicators (BKPI®) and other methods that evaluate personal performance of teachers in educational and research activities.
	Progress	<ul style="list-style-type: none"> <li>• HU used Basic Effort Key Performance Indicators (BKPI®) in addition to Achievement-motivated Key Performance Indicators (AKPI®) for allocating teachers (personnel allocation) to important fields from a holistic viewpoint (i.e. enhance the strengths and characteristic functions of individual departments, based on the project to restructure graduate schools and create new graduate schools and other initiatives), in accordance with the Hiroshima University Teacher Deployment Policy for AY2018 and AY2019.</li> <li>• To retain and develop excellent researchers and to promote active educational and research projects, HU's personnel allocation focused on increasing young teachers, female teachers and foreign teachers in all departments. <u>The age structure of teachers was also improved by deploying more Associate Professors, Lecturers, and Assistant Professors.</u></li> <li>• As of March 31 2018, HU had received 144 personnel requests from individual departments due to the resignation of existing teachers or in accordance with their future personnel plans. HU strategically deployed teachers in responding to 59 requests. (For the full year of AY2017, HU received 189 requests for personnel deployment and strategically deployed teachers in responding to 76 requests. At the meeting to discuss personnel requisitions submitted during the first period in accordance with the Hiroshima University Teacher Deployment Policy for AY2019, only personnel requisitions that needed an early action were accepted, such as requisitions for deployment of young teachers, female teachers and foreign teachers, and teachers necessary for degree programs.)</li> </ul>
Medium-Term Objectives [21]		Enhance the international competence of teachers and staff members capable of conducting excellent education and research activities in an international competitive environment.
	Medium-Term Plan [47]	To recruit and retain excellent teachers and administrative staff members from inside and outside Japan, HU should establish more flexible personnel and compensation systems, including an annual compensation system and a mixed compensation system. The percentage of teachers who work under the annual compensation system should be increased to about 21% of all teachers.
	Plan for AY2017 [47]	To recruit and retain excellent teachers and administrative staff members from inside and outside Japan, HU should establish more flexible personnel and compensation systems, including an annual compensation system and a mixed compensation system. The percentage of teachers who work under the annual compensation system should be increased to about 16.2% of all teachers.
	Progress	<ul style="list-style-type: none"> <li>• To increase the number of teachers who work under the annual compensation system, HU created a leaflet that outlines the annual compensation system and distributed it to teachers scheduled to be hired and existing teachers to make sure that they are aware of the system. As a result, the percentage of teachers who work under the annual compensation system (including specially appointed teachers) had reached 22.3% of all teachers as of March 31, 2018 (an increase of 2.2% from the previous year), significantly exceeding the target of 16.2%. <u>The percentage of succeeding teachers (i.e. teachers who were employed by the University before it was incorporated) who work under the annual compensation system increased to 20.2% (an increase of 3.9% from the previous year).</u></li> <li>• The use status of the cross-appointment system as of March 31, 2018 increased to six agreements (four with Japanese organizations and two with foreign organization), from two agreements in the previous year (one with a Japanese organization and one with a foreign organization).</li> <li>• To promote more use of the cross-appointment system, HU created and communicated the Procedures for the Cross Appointment System. It was also communicated that the cross-appointment system should be used in principle for foreign teachers who are hired for a short term under the labor cost point hiring quota.</li> <li>• The cross-appointment system had been applied only to university teachers and specially appointed teachers. <u>It was decided to expand the application to researchers and education/research promoters (such as coordinators and managers) in AY2019 to further promote educational and research activities and industry-academia collaboration, and to extensively acquire excellent human resources from inside and outside Japan.</u></li> </ul>

	Medium-Term Plan [48]	To provide more opportunities to excellent young teachers (under 40) and to vitalize educational and research activities throughout the University, the percentage of young teachers (under 40) should be increased to about 34% of all teachers, by hiring tenure-track teachers in accordance with the teacher employment plan.
	Plan for AY2017 [48]	To provide more opportunities to excellent young teachers (under 40) and to vitalize educational and research activities throughout the University, the percentage of young teachers (under 40) should be increased to about 30%, by hiring young teachers in accordance with the Teacher Deployment Policy.
	Progress	<ul style="list-style-type: none"> <li>• In AY2016, the organization of teachers was separated from the organization of education, and research and the Academy of Hiroshima University was established as a central organization of teachers. The management of labor costs of teachers was transferred from individual departments to central management by the Academy under the leadership of the President. The Central Personnel Committee was established as an organization directly supervised by the President. This Committee manages teacher labor costs, and reviews the allocation of teachers, including selection of candidates. The President gives final approval on personnel matters relating to teachers, based on the Committee's review and prior deliberation by the Executive Board. <u>With this organizational structure, the Central Personnel Committee uses its unique Achievement-motivated Key Performance Indicators (AKPI®) and other criteria to consider strategic and systematic personnel allocation from a holistic viewpoint for the entire university beyond the borders of educational and research organizations.</u></li> <li>• Under the central management of personnel affairs of teachers, as a part of the effort to recruit diverse human resources, <u>a strategic quota for "young researchers (under 35)" was created and 51 posts were offered to young researchers.</u> <ol style="list-style-type: none"> <li>(1) The Teacher Deployment Policies for AY2017 and AY2018 were reviewed and modified. The labor cost points for "Young Assistant Professor (three-year appointment)" was increased from 5.00 points to 10.00 points, and 16 posts were offered to young assistant professors.</li> <li>(2) HU applied for the National University Reform Subsidies Program (National University Young Researcher Support Program) for AY2017. <u>Subsidies for 21 posts were approved.</u></li> <li>(3) HU planned the Young Teacher Recruitment Acceleration Project (for the tenure-track system), using the funds in the Reserve for Special Purpose as of the end of FY2016 and hired six teachers.</li> <li>(4) By utilizing the subsidies from the MEXT "Building of Consortia for the Development of Human Resources in Science and Technology" project (the 8th term (the first half of AY2018), and the 9th term (the second half of AY2018)) (for the tenure-track system), six researchers were hired.</li> <li>(5) By utilizing subsidies from the MEXT "Leading Initiative for Excellent Young Researchers" program (for researchers newly hired in AY2018) (for the tenure-track system), HU decided to select two candidates and apply for the program.</li> </ol> </li> <li>• By these programs, as of March 31, 2018, the percentage of young teachers (under 40) among all full-time teachers had increased to 23.1%, a decrease of 1.2% from the previous year (it was 20.3% for teachers to whom the accumulation of operating cost subsidies for severance benefits applies). The target of 30% could not be attained mainly because fewer full-time researchers resigned and the number of existing researchers who reached the age of 40 increased from the previous year.</li> <li>• <u>As of March 31, 2018, the percentage of tenure-track teachers among all full-time teachers increased to 12.5% (an increase of 6.0% from the previous year).</u></li> <li>• HU will conduct the following activities to achieve the objectives of the Medium-Term Plan: <ol style="list-style-type: none"> <li>(1) To vitalize its educational and research activities at HU, retention and development of excellent teachers is necessary. To achieve this, teachers should be evaluated fairly and appropriately regarding their abilities and performance, and the evaluation should be reflected in their recruitment and promotion. In particular, HU should develop young researchers so that they can start their career as a university teacher with ease of mind and improve their abilities as a teacher. To realize this, HU developed the "Policy for Retaining and Developing Excellent University Teachers - To Become a university where young teachers play active roles with ease of mind." In accordance with this policy, HU should recruit tenure-track teachers.</li> <li>(2) Under the central management of personnel affairs of teachers, and in accordance with the Hiroshima University Teacher Deployment Policy, a request to replace a post with a young teacher should be preferentially satisfied. In accordance with the policy in (1) above, all departments should offer the tenure-track system (with a contract term of five to seven years) to young researchers who are newly hired by the University to promote medium- and long-term employment of young researchers.</li> </ol> </li> </ul>
	Medium-Term Objectives [23]	Encourage teachers and administrative staff members to keep a Work-Life Balance. Actively post female teachers and employees to decision-maker positions relating to the management of the University.
	Medium-Term Plan [51]	To promote active participation of female teachers and administrative staff members in the activities of the University, the percentages of female teachers and female managers should be increased to about 20%.

Plan for AY2017 [51]	<p>To promote active participation of female teachers and administrative staff members in the activities of the University, the percentage of female teachers should be increased to about 16.6% of all teachers, and female managers should be increased to about 14.5% of all managers by implementing personnel deployment in accordance with the Teacher Deployment Policy.</p>
Progress	<ul style="list-style-type: none"> <li>• Under the central management of personnel affairs of teachers, as a part of the effort to recruit diverse human resources, a strategic quota for “female teachers” was created and 19 posts were offered to female teachers.</li> <li>• <u>In AY2017, HU continued the Positive Action in Recruiting Teachers Program. It is a program to choose a female teacher preferentially if the achievement and other evaluation results are on the same level.</u> HU also continued open teacher recruitment targeting women only as a part of the MEXT “Building of Consortia for the Development of Human Resources in Science and Technology” program. As a result, the percentage of female teachers as of March 31, 2018 was 16.1% of all teachers (an increase of 0.2% from the previous year).</li> <li>• To promote activities to improve the research abilities of female researchers in the future, active recruitment of female researchers and appointment of female researchers to senior positions, a meeting of the Committee for Promotion of Female Researchers Roles was held. To acquire excellent female teachers and increase the number of female teachers, the Committee asked for the further cooperation of the deans of all departments in raising awareness. The Education and Research Council announces the percentage of female teachers among all positions offered and the percentage of existing female teachers every quarter.</li> <li>• The percentage of female managers <u>reached 15.3% as of March 31, 2018 (an increase of 2.5% from the previous year), achieving the target.</u> To actively post female teachers to the Education and Research Council and other decision-maker positions relating to the management of the University, and to increase the number of female senior managers, the Central Personnel Committee of the University set 0.68 points for both AY2017 and AY2018 to promote female teachers to higher ranks. As a result, eight female teachers were promoted to higher posts.</li> <li>• Based on the results of the questionnaire survey conducted by another university in December, to establish a system to support female researchers’ return to a career path and a system to support spousal employment, under the “Initiative for the Implementation of Diversity in Research Environment” (leading type), HU considered policies for these systems.</li> </ul>

○ Attainment status of each objective

I. Operations and financial conditions

(1) Objectives relating to improvement of operation and efficiency

(i) Improvement of operation of the organization

Medium-Term Objectives	<p>[19] Establish an effective and transparent operation system to maximize the educational and research functions, by taking advantage of the strengths and characteristics of the University.</p> <p>[20] Improve the environment for stronger leadership by the President and allocate internal resources strategically by utilizing IR.</p> <p>[21] Enhance the international competence of teachers and staff members capable of providing excellent education and conducting research activities in the competitive international environment.</p> <p>[22] Develop administrative staff members having knowledge on specialty fields who can provide stronger support to educational and research activities.</p> <p>[23] Encourage teachers and administrative staff members to keep a Work-Life Balance and actively post female teachers and employees to decision-maker positions relating to the management of the University.</p>
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Medium-Term Plan	Annual Plan	Progress
<p>[44] To realize independent operation with a wide range of perspectives, opinions from external members of the Administrative Council (including foreign members) should be collected and reflected in the operation of the University as a corporation via interviews between the President and deans/directors of departments.</p>	<p>[44] Based on opinions and reviews received from external reviewers (including one or more external members of the Administrative Council), the results of a third party's evaluation by the Evaluation Committee and the President's interviews with deans and directors, necessary improvement should be implemented. The actions that have been taken by individual departments should be verified and the effectiveness of the PDCA cycle should be improved.</p>	IV
<p>[45] To strengthen its governance system, HU should review and revise its decision-making processes. The President and Auditors should hold regular meetings to keep close communication with each other, and to monitor the independence of auditors and effectiveness of the support to auditors, to strengthen the functions of auditors.</p>	<p>[45] Authority given to the President, executives, vice presidents and other officers, and the functions of individual operational organizations should be reviewed and modified as needed. Campus-wide regulations and regulations established by individual departments should be checked to confirm their consistency. Additional regulations should be established as necessary. The President and auditors should hold regular meetings to discuss the results of audits by auditors, and these results should be reflected in the operation of the University as a corporation. The independence and effectiveness of the support to auditors should be monitored, and improvement and expansion of their functions should be implemented as needed.</p>	III
<p>[46] Transfer the management of labor costs of teachers from individual departments to central management in order to strengthen education and research abilities. Teachers and researchers should be strategically allocated, by using HU's unique Achievement-motivated Key Performance Indicators (AKPI®) and other methods that evaluate personal performance of teachers in educational and research activities.</p>	<p>[46] Under the leadership of the President, teachers and researchers should be strategically allocated, by using HU's unique Achievement-motivated Key Performance Indicators (AKPI®), Basic Effort Key Performance Indicators (BKPI®) and other methods that evaluate personal performance of teachers in educational and research activities.</p>	IV
<p>[47] To recruit and retain excellent teachers and administrative staff members from within and outside Japan, HU should establish more flexible personnel and compensation systems, including an annual compensation system and a mixed compensation system. The percentage of teachers who work under the annual compensation system should be increased to about 21% of all teachers.</p>	<p>[47] To recruit and retain excellent teachers and administrative staff members from within and outside Japan, HU should establish more flexible personnel and compensation systems, including an annual compensation system and a mixed compensation system. The percentage of teachers who work under the annual compensation system should be increased to about 16.2% of all teachers.</p>	IV

<p>[48] To provide more opportunities to excellent young teachers (under 40) and to vitalize educational and research activities throughout the University, the percentage of young teachers (under 40) should be increased to about 34%, by recruiting tenure-track teachers in accordance with an employment plan.</p>	<p>[48] To provide more opportunities to excellent young teachers (under 40) and to vitalize educational and research activities throughout the University, the percentage of young teachers (under 40) should be increased to about 30%, by implementing personnel deployment in accordance with the Teacher Deployment Policy.</p>	<p>III</p>
<p>[49] Retain and develop excellent administrative staff members by recruitment, transfer, promotion, training and other activities in accordance with the administrative personnel development plan, by clarifying the knowledge and skills necessary for the operation of each department and improving the abilities of employees by using this knowledge and these skills; enhancing the motivation of employees by clarifying the career paths and the promotion criteria; and improving the productivity of all employees by creating and providing opportunities to engage in challenging tasks.</p>	<p>[49] In accordance with the administrative personnel development plan, HU should retain and develop excellent administrative staff members by recruitment, transfer, promotion, training and other activities and programs.</p>	<p>III</p>
<p>[50] HU should create environments that encourage teachers and administrative staff members to use programs designed for keeping a Work-Life Balance, through active communication and holding seminars about these programs. By AY2019, HU should strive to receive accreditation for compliance with the "General Employer Action Plan" (third period) of the Ministry of Health, Labor and Welfare under the Act on Advancement of Measures to Support Raising Next-Generation Children.</p>	<p>[50] Based on the "General Employer Action Plan" (third period) for the period from AY2014 to AY2019, HU should promote use of Work-Life Balance support programs for employees by actively communicating and holding seminars about these programs and should verify the use status of these programs.</p>	<p>IV</p>
<p>[51] To promote active participation of female teachers and administrative staff members in the activities of the University, the percentages of female teachers and female managers should be increased to about 20%.</p>	<p>[51] To promote active participation of female teachers and administrative staff members in the activities of the University, the percentage of female teachers should be increased to about 16.6% of all teachers and female managers should be increased to about 14.5% of all managers by implementing personnel deployment in accordance with the Teacher Deployment Policy.</p>	<p>III</p>

I. Operations and financial conditions  
 (1) Objectives relating to improvement of operation and efficiency  
 (ii) Objective relating to restructuring of the education and research organizations

Medium-Term Objectives	[24] From the viewpoint of strengthening functions of all departments of the University, based on the population of students 18 years old, social needs and other factors, HU should restructure and establish flexible and optimized educational and research organizations, taking advantage of its strengths and characteristics.
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Medium-Term Plan	Annual Plan	Progress
[52] Conduct active educational and research activities, taking advantage of the strengths and characteristics of the University, by redefining its missions and identifying social needs. Separate teachers from the education and research organizations to build a flexible teacher organization that enables strategic allocation of teachers to important educational and research fields. Educational and research organizations should also be reorganized and their enrollment quotas should be reviewed.	[52] Consider reorganizing the educational and research organizations to strengthen the functions of the humanity and social science/interdisciplinary fields and the science and engineering fields. Enrollment quotas of individual departments should be reviewed and modified. Make preparations for the establishment of the School of Informatics and Data Science (tentative name) and the "Department of Integrated Global Studies" (tentative name) of the School of Integrated Arts and Sciences in AY2018.	IV
[53] HU should establish educational and research organizations that take advantage of the characteristics and proven educational and research resources in the fields of life and biological sciences.	[53] Consider establishing educational and research organizations of life and biological science fields that lead to enhancement of the functions of the fields.	IV
[54] To develop teachers who can provide excellent education in a new era and to cope with various educational problems, including diverse needs in personnel development, in AY2016, the Graduate School of Education should be reorganized and the Professional Development Program for Teachers and School Leaders should be newly established. After completion of grade progression, the curriculum, human resources to be developed, employment rates and other items should be verified, comparing them to the original purposes of the establishment of the course.	[54] For the Professional Development Program for Teachers and School Leaders, a system to verify post-completion of grade progression should be established.	III

**I. Operations and financial conditions**
**(1) Objectives relating to improvement of operation and efficiency**
**(iii) Objectives relating to rationalization and improvement of efficiency of administrative operations**

Medium-Term Objectives	[25] To rationalize and improve the efficiency of administrative operations, the administrative organizations and operations should be reviewed and restructured. The abilities of administrative staff members should also be improved.
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Medium-Term Plan	Annual Plan	Progress
[55] Ongoing inspection and review of organizations and overall operations should be conducted. Administrative operations should be rationalized to improve their efficiency, by transferring management of information currently conducted by different systems to a central management system, expanding the on-line application system, establishing an ICT system, and improving the abilities of administrative staff members by practical job training and training programs by ability level.	[55] Ongoing inspection and review of organizations and overall operations should be conducted. The ICT system should be inspected and improved as needed. Information currently managed by different systems should be transferred to and managed by a central management system. To enhance the abilities of administrative staff members, various types of practical job training and training programs by ability level should be provided and verified.	III

(1) Notes relating to improvement of operation and efficiency
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**Strengthening of governance**

## i) Strengthen the risk management system

Under the leadership of the President, HU implemented school reforms mainly in the area of reinforcement of its educational and research abilities. HU also strengthened its risk management system. To address compliance issues on information security and the prevention of misconduct in research activities, HU newly appointed the Vice President in Charge of Information and the Vice President in Charge of Research Ethics.

## ii) Providing opportunities to share information and exchange opinions relating to the university operations

To strengthen the power of the University, it is essential to retain and develop excellent teachers. To realize this, the "Policy for Retaining and Developing Excellent University Teachers - To become a university where young teachers play active roles with ease of mind" was reported in the meeting of the Executive Board on October 24, 2017.

It was proposed in the report that HU should further deliberate on a proper operation system for the new educational and research organizations formed as a part of the restructuring of the graduate schools. For this deliberation, HU formed the "Working Group for Deliberation of a Proper Operation System for the New Educational and Research Organization" under the Executive Board. The Working Group had a total of 17 deliberation meetings. It also conducted two all-departments opinion exchange meetings and four opinion exchange meetings with individual graduate schools to share information and exchange opinions.

## iii) Selection and performance evaluation of the President

The term of office of the present President will expire at the end of AY2018. The President Selection Committee held five meetings in FY2017. In the fifth meeting, the Committee conducted a performance evaluation of the President, in accordance with the requirement stipulated under the applicable law that was revised in April 2015 in connection with the reform of university governance. As a result of the evaluation, the Committee determined that the performance of the President was excellent.

In this meeting, following the evaluation, the Committee discussed the reappointment of the President and determined that the reappointment of the President is acceptable and approved him as a candidate for the President for the next term.

## iv) Improvement of operation of the organization [Project No. 44]

- To further improve the quality of educational and research activities by enhancing the characteristics of individual departments and implementing measures to improve and eliminate identified problems, external reviewers (including one or more external members of the Administrative Council) conducted evaluation of 18 departments in September 2017. Based on the results of the evaluation by these external reviewers (including one or more external members of the Administrative Council), the results of a third party's evaluation by the Evaluation Committee of the University and the President's interviews with deans and directors, the actions that have been taken by individual departments were verified to improve the effectiveness of the PDCA cycle.
- To reflect constructive opinions of students in the operation of the University as a corporation, an opinion exchange meeting was held in September 2017 between external reviewers (including one or more external members of the Administrative Council) and

students. A request was presented by the students that the open hours of the library should be extended to 22:00. In April 2018, in response to this request, the open hours of the library were extended to 24:00 to provide a place where students can study at night.

## v) Strategic allocation of internal resources [Project No. 46]

Please refer to "Actions for Strategic and Ambitious Objectives and Plans" on p. 32.

## vi) Acquisition of diverse and excellent human resources [Project No. 47]

Please refer to "Actions for Strategic and Ambitious Objectives and Plans" on p. 32.

**Development of administrative staff members**

## i) Global competency of administrative staff members [Project No. 49]

As for global competency of administrative staff members, HU set a goal of increasing the percentage of administrative staff members with a TOEIC® score of 800 points or higher to 20% by May 1, 2023, under the Top Global University Project adopted by MEXT in AY2014. To achieve this goal, HU hired foreign administrative staff members, sent Japanese administrative staff members to overseas training programs, provided skill development training (online English conversation lessons) and conducted other activities. As a result, as of March 31, 2018, the percentage had increased to 9.7%.

## ii) Activities in accordance with the administrative personnel development plan [Project Nos. 49 and 55]

- To recruit persons who enthusiastically wish to work at HU and to retain employees with diverse ambitions, since AY2013, HU has conducted its original employment examination, in addition to the uniform government employment examinations. In AY2017, HU modified its original employment examination. The number of examinations was increased from three times to four times. It conducted aptitude tests, increased the number of female interviewers, and used high TOEIC scores as one of the criteria for screening. As a result, HU employed ten administrative staff members by this original employment test, including foreigners and persons with TOEIC scores of 700 points or higher (one was hired prior to the end of AY2017, and nine had been hired as of April 1, 2018).
- As for the administrative group leader promotion system, HU examined the results of the questionnaire survey about the revised examination implemented in AY2015. As there were many positive opinions about the revised contents of the examination, HU continued to use the revised contents for the administrative group leader promotion examination for AY2017 while the number of female interviewers was increased.
- HU had used the results of personnel evaluations conducted under the Target Management System as a reference for determining promotion, pay raise and other treatment of employees. From October 2017, to conduct personnel evaluation that takes into account responsibilities, abilities and performance of employees, HU partially revised the evaluation system to reflect the evaluation results in the compensation for managerial employees (administrative staff members of the group leader class).
- HU sent 11 employees to overseas training programs in eight countries, and conducted a TOEIC®IP test skill development training program (a total of 146 employees took the test), skill development training by online English conversation lessons (with the participation of 25 employees), a TOEIC® English training program (with the participation of 21 employees) and the English Conversation Training Application "myET" (with the participation of 113 employees).



### Promotion of a Work-Life Balance

Activities to promote a Work-Life Balance and diversity in research environment [Project No. 50]

- HU examined the use statuses of its Work-Life Balance support programs by employees. Based on the results of this examination, in April 2018, as one of the work-style options that employees can choose to continue to work at the University depending on their family circumstances, HU adopted the “Temporary Retirement for Spouse’s Overseas Transfer” system. It is a system under which an employee can take a long leave of absence while the employee accompanies his/her spouse who is transferred to an overseas location. In addition, to help researchers to keep a balance between research activities and their life events, HU started posting a research assistant who assists research activities of a researcher of HU under the direction of the researcher when it is difficult for the researcher to take sufficient time for research activities due to pregnancy, childcare or family care.
- In April 2018, the partial child care leave system and the partial family care leave system were revised as more flexible systems. To make it easier for employees to take these types of leave of absence, in the revised systems, employees may partially cancel a certain period of leave already approved.
- The enrollment requirements for the in-house childcare center was eased to permit enrollment of a child while the spouse of the employee is seeking a job. Moreover, when the in-house childcare center operates on a holiday to take care of children while their parents are engaged in the business of the University, such as operations related to the National Center for University Entrance Examinations, the short-term childcare fee is reduced by half.
- To support employees in keeping a balance between work and family life, HU created a leaflet to encourage employees to take annual paid leave, and distributed it within the University to enhance employees’ awareness. HU also opened an account on Facebook as a tool to provide information to teachers and administrative employees and communicate with them about the Work-Life Balance support programs offered by HU.
- HU held the 9th Chugoku/Shikoku Gender Equality Symposium, with the theme of “gender equality towards the achievement of a peaceful and sustainable society,” communicating widely to people in and outside the University the role of gender equality in the disaster prevention and other fields.
- HU held a seminar to advocate the active role of women, “Promotion of Diversity as a Management Strategy,” to discuss the social and economic background in Japan that calls for diversity, problems to overcome to promote diversity, and to raise the managers’ awareness of the importance of their management.

### Restructuring of the educational and research organizations

- i) Establishment of new undergraduate schools and new courses [Project No. 52]  
Based on the redefined missions and identified social needs, HU’s unique Achievement-motivated Key Performance Indicators (AKPI®) and other indicators that monitor the teachers’ performance in education and research activities, and analysis by using the IR function, HU reviewed and modified the functions and enrollment quotas of individual undergraduate schools. Under the central management of personnel affairs of teachers, teachers were strategically allocated to individual schools. In April 2018, HU established the School of Informatics and Data Science (enrollment quota: 80 students), and the “Department of Integrated Global Studies” in the School of Integrated Arts and Sciences (enrollment quota: 40), and reorganized the School of Engineering.

- ii) Develop a basic policy for restructuring of graduate schools [Project Nos. 52 and 53]

In March 2017, the “working group to discuss restructuring of graduate schools in the life and biological science fields” and the “working group to discuss restructuring of graduate schools in the science and engineering fields” submitted reports of their deliberation. In May 2017, the “working group to discuss restructuring of graduate schools in the humanity and social science fields and interdisciplinary fields” submitted a report of its deliberation. Based on these reports, HU set a mission for graduate schools: Create new knowledge and value that contribute to the realization of a sustainable and peaceful inclusive society, and develop people who play active roles in creating innovations. To realize this mission, HU developed the “Basic Policy for Restructuring of Hiroshima University Graduate Schools” (approved by the Education and Research Council on May 16, 2017).

- iii) Consideration of reinforcement of the functions of graduate schools in the humanity and social science/interdisciplinary fields and the science and engineering fields [Project No. 52]

To strengthen the functions of the humanity and social science/interdisciplinary fields and the science and engineering fields in accordance with the Basic Policy for Restructuring of Hiroshima University Graduate Schools, as of May 16, 2017, the “Committee for Establishment of the Graduate School of Education, Humanity and Social Science (tentative name)” and the “Committee for Establishment of the Graduate School of Natural Science and Technical Research (tentative name)” were formed. These committees decided to establish these new graduate schools in or after 2020, and further deliberated on the details of these proposed schools.

- iv) Establish a graduate school that will contribute to reinforcement of the functions of the life and biological science fields [Project No. 53]

To strengthen the functions of the life and biological science fields in accordance with the Basic Policy for Restructuring of Hiroshima University Graduate Schools, as of May 16, 2017, the “Committee for Establishment of the Graduate School of Integrated Life Science (tentative name)” and the “Committee for Considering the Future of the Graduate School of Biomedical & Health Sciences” were formed to deliberate on these matters.

Considering the diverse social needs, and based on the HU’s unique Achievement-motivated Key Performance Indicators (AKPI®) and other indicators that monitor the teachers’ performance in education and research activities, and analysis by using the IR function, HU reviewed and modified the functions and enrollment quotas of the life and biological science fields and the medical fields. Under the central management of personnel affairs of teachers, HU considered restructuring of five graduate schools in the life and biological science fields, by strategically allocating teachers to these fields. HU discussed the proposed establishment of the following new graduate schools with the Ministry of Education, Culture, Sports, Science and Technology, aiming at starting these courses in April AY2019: the Graduate School of Integrated Life Science (tentative name) (Enrollment quota: 170 students in master courses, 70 students in doctoral courses); and the Graduate School of Medical Science (tentative name) (Enrollment quota: 76 students in master courses, 25 students in doctoral courses, 97 students in master and doctoral courses). Consequently, in April 2018, HU submitted a graduate schools establishment plan to MEXT.

In this restructuring initiative, HU conducted initiative actions for future reform of graduate schools and for promoting leading interdisciplinary and cross-field research education and research activities. HU established cross-disciplinary degree programs in each graduate school. It also started a Leading International Project Group (tentative name), which is comprised of graduate schools of HU, research organizations in and outside Japan, enterprises, and other organizations, to establish a system that enables interdisciplinary and cross-field research education and research activities that utilize diversified research abilities and combined powers of participating organizations.

#### **Actions to address problems pointed out in the AY2016 evaluation**

Delivery of letters of acceptance/failure to wrong addresses in the admission examination with commendation

In the admission examination with commendation for AY2017 enrollment (the examination was conducted during AY2016), some letters of acceptance/failure were delivered to wrong addresses. To prevent the same mistake from happening in the first and second sessions of general admission examinations for AY2017 enrollment (these examinations were conducted during AY2016), HU immediately took actions and revised the checking system as follows:

(1) The Admission Examination Group checked the data of all applicants that were input into the computer

The operation procedure manual was modified. By following the revised manual, two checkers compared the applicant data created in the online application system with the applicant data that were input into the Admission Examination Information System.

(2) HU hired a business operator to check the registered address data of all applicants against the addresses shown on the application forms.

For general admission examinations taken by a large number of applicants, an HU staff member brought the printed list of address data that were input into the Admission Examination Information System and application forms to a contracted business operator and checked the data consistency by reading out the data between the checkers.

(3) To prevent the recurrence of the same mistake, the systems were modified in AY2017.

The online application system and the Admission Examination Information System were modified so that data in the online application system can be directly transferred to the Admission Examination Information System without manual operations by employees in the Admission Examination Group.

I. Operations and financial conditions  
 (2) Objectives relating to improvement of financial conditions  
 (i) Objectives relating to expansion of external research funds, donations and internal revenues

Medium-Term Objectives	[26] HU should improve and strengthen its financial structure in order to conduct world-level educational and research activities as a comprehensive research university.
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Medium-Term Plan	Annual Plan	Progress
[56] Conduct an investigation of the movement of competitive research funds in and outside Japan. Based on an analysis of the investigation, a more efficient funding strategy should be developed, aiming to increase the amount of external funding per teacher by about 1.5 times the amount as of the end of the Second Medium-Term Period.	[56] In accordance with the funding strategy, funding measures should be developed for each fund type. Conduct an investigation of the movement of competitive research funds in and outside Japan. Based on an analysis of the investigation, the current funding strategy should be reviewed.	III
[57] To expand the Hiroshima University Fund, the effectiveness of the donation methods and the advertisements should be continuously verified, and the solicitation strategy should be modified.	[57] To expand the Hiroshima University Fund, by using the verification method developed in AY2016, the effectiveness of solicitation strategies, such as the donation methods and the advertisements, should be developed and the results of the verification should be compiled into a report.	IV

I. Operations and financial conditions  
 (2) Objectives relating to improvement of financial conditions  
 (ii) Objectives relating to cost reduction

Medium-Term Objectives	[27] Visualize the financial indicators to efficiently use and manage expenses.
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Medium-Term Plan	Annual Plan	Progress
[58] To hold down the percentage of general administrative expenses, HU should conduct financial analysis of expenses of each segment, set the cost reduction target for consumables and other items in administrative departments at -2% from the previous year, and work to continuously reduce general administrative expenses.	[58] To hold down the percentage of general administrative expenses, HU should conduct financial analysis of expenses of each segment, set the cost reduction target for consumables and other items in administrative departments at -2% from the previous year, and work to reduce general administrative expenses.	III

I. Operations and financial conditions  
 (2) Objectives relating to improvement of financial conditions  
 (iii) Objectives relating to improvement of asset investment and management

Medium-Term Objectives	[28] Effectively use assets (facilities and equipment) of the University from a holistic viewpoint and continuously review how they should be used.
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Medium-Term Plan	Annual Plan	Progress
[59] Continue the collection and verification of information regarding the use statuses of assets (facilities and equipment), and promote their joint and shared use. Make these joint-use assets available to outside parties to promote their effective use.	[59] In cooperation with the organization responsible for research facility management, continue the collection and verification of information regarding the use statuses of assets (facilities and equipment), and promote their joint and shared use. Make these joint-use assets available to outside parties to promote their effective use.	III

## (2) Notes relating to improvement of financial conditions

### Activities to expand external research funds and internal revenues

#### i) Development and implementation of an "External Funding Strategy" [Project No. 56]

In accordance with the External Funding Strategy developed in AY2016, HU conducted various activities to generally increase funding from external sources, including the adoption of the hourly-rate method for indirect costs of joint research activities, expansion of the Title Sponsor Fund, and commencement of the acceptance of clinical trials of regenerative medicines and other medicines. As a result, the amount of the external fund per full-time teacher acquired in AY2017 was 6,530,000 yen, an increase to about 110% of the amount at the end of the Second Medium-Term Period (the external fund per full-time teacher in AY2015 was 5,950,000 yen).

#### ii) Cost reduction [Project No. 58]

- The ratio of general administrative expenses to operating costs reported in the financial report for AY2016 was calculated for each segment (i.e. unit for accounting purposes), and a financial analysis of causes for the increase/decrease from the previous year and other matters was implemented. The results of the analysis were reported in the meeting of the Group of Accounting Controllers held in June 2017, a meeting of accounting controllers from all departments, to solidify their understanding regarding budget allocation and use of the budget to achieve reduction of the general administrative expense ratio.

- To reduce the general administrative expense ratio, in the initial budget for AY2017, the budgets for administrative expenses and common operating expenses for the entire University (such as utilities, cleaning, security, and building maintenance expenses) were reduced by 2.5% from the budget for AY2016 (4% reduction in the Corporate Headquarters) (annual reduction by 98,548,000 yen).

In the initial budget for AY2018 that was created in March 2018, the budgets for administrative expenses and common operating expenses for the entire University (such as utilities, cleaning, security, and building maintenance expenses) were reduced by 2.5% from the budget for AY2017 (6% reduction in the Corporate Headquarters) (annual reduction by 96,118,000 yen).

- Electricity service contracts of other universities and their actual costs were examined and analyzed. Based on the results of these examinations and analyses, HU concluded long-term (five years) service contracts for the Higashi-Hiroshima Campus and the Kasumi Campus to obtain a higher discount for long-term service and a higher discount for a large account. It is expected that the electricity cost will be reduced by about 50 million yen a year in and after AY2018.

#### iii) Effective use of owned assets [Project No. 59]

- To increase revenues from effective use of its owned assets, HU rents with charge some facilities to outsiders for short-time use. HU collected and verified information on the use status of these facilities offered for short-time use. In AY2017, HU adopted an incentive system to allocate 60% of the revenues received from renting these facilities to controlling departments of these facilities. As a result, the annual revenues increased by 2,700,000 yen (a 23% increase) from AY2016. To further encourage the short-time use of these facilities, in March 2018, information about this system was posted on the website of Hiroshima University, open to public viewers. When posting the information, HU set a policy to design the web pages in such a way that it is easy for visitors who are outsiders to find information. They were designed so that information of photos of the buildings and rooms for rent, rental fees,

capacity of the rental facilities, fixtures and equipment, the application procedures, and other related information can be quickly viewed from a table of rental facilities. In addition, to make it easier for visitors to find information, facilities are sorted by capacity and by department.

- As for revenues from lending spaces for vending machines, HU had had contracts with two vending machine operators because the execution dates of these contracts were different. Upon the renewal of these contracts, they were put together into one contract. As a result, the commission fees received for lending spaces for vending machines increased 11%. It is expected that revenues in AY2018 will increase by 7,500,000 yen from AY2017. These revenues received for lending spaces for vending machines were appropriated to cover a part of the costs of the START overseas short-stay program for students in the first year who did not have much overseas experience.

### Activities to solicit donations

#### i) Send the leaflets to more alumni organizations, based on the results of the verification of the donation methods, the effect of the publicity activities, and other matters [Project No. 57]

When newsletters of alumni organizations of the School/Graduate School of Medicine and the School/Graduate School of Dentistry were sent to graduates in AY2016, the leaflets of the Hiroshima University Title Sponsor Fund and the Hiroshima University Fund were enclosed. Because this arrangement had some positive effect on fund-raising, in AY2017, these leaflets were also attached to newsletters of alumni organizations of the School/Graduate School of Integrated Arts and Sciences, the Program of Health Science (School of Medicine)/the Health Science Major (Graduate School of Biomedical & Health Sciences), the School/Graduate School of Engineering, and the School/Graduate School of Applied Biological Science, in addition to alumni organizations of the School/Graduate School of Medicine and the School/Graduate School of Dentistry. In AY2017, a total of 14,380,000 yen (46 donations) was received from alumni of the School/Graduate School of Medicine and the School/Graduate School of Dentistry, and a total of 6,883,000 yen (165 donations) was received from other alumni.

In AY2016, the leaflet of the Hiroshima University Fund was attached to the invitation letter for Hiroshima University Homecoming Day to solicit donations. As a positive result was obtained, HU has continued this arrangement in AY2017. As a result, a total of 65 donations (1,673,000 yen) were received from graduates.

HU sends newsletters of Hiroshima University to persons who have made donations in the past and parents of HU students. When sending the newsletters to them, the leaflet of the Hiroshima University fund was enclosed. As a result, HU received 355 donations (14,986,000 yen) from repeaters and parents of HU students.

#### ii) Expansion of the Student Support Fund [Project No. 57]

As a result of the revision of the taxation system in 2016, donors to the Hiroshima University Student Support Fund may use tax credits. Donations to this Fund are used to provide financial support to students in financial difficulty. In AY2017, HU modified the leaflet about this Fund to highlight its tax benefit. As a result, the Fund received 499 donations (24,239,000 yen). For the "Fund to Vitalize Hiroshima Prefecture where Hiroshima University Can Play Active Roles," HU offered the Student Support Fund as one of the programs that donors could choose. As a result, a total of 48 donations (5,243,000 yen) to the Student Support Fund were received.

#### iii) Creation of a new fund, looking forward to the 75th anniversary [Project No. 57]

In 2024, HU will celebrate its 75th anniversary. In preparation for the 75th anniversary, HU

established the "Fund to Vitalize Hiroshima Prefecture where Hiroshima University Can Play Active Roles." It started raising start-up funds from members within the University. In four months from December 2017 to March 2018, a total of 216 donations (37,918,000 yen) were received. As of the end of May 2018, the Fund has received applications for donation exceeding 50 million yen from more than 500 officers and employees within the University.

To solicit donations from enterprises and other organizations, following the start-up fund-raising, HU started the development of a system for fund-raising in cooperation with the local chamber of commerce and other organizations. In April 2018, the Office of Funding to Vitalize Hiroshima Prefecture where Hiroshima University Can Play Active Roles was established, which reports directly to the President.

I. Operations and financial conditions  
 (3) Objectives relating to self-check/evaluation and provision of information  
 (i) Objectives relating to improvement of the evaluation system

Medium-Term Objectives	[29] To vitalize its educational and research activities as a comprehensive research university, HU should receive an evaluation of its organization by a third party, based on its self-check and evaluation.
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Medium-Term Plan	Annual Plan	Progress
<p>[60]            To maintain and improve the quality of its educational and research activities, common evaluation items for the entire University should be established. Individual departments should perform an annual self-check and evaluation by using their own unique evaluation items, which should be set according to the characteristics of individual departments. An external evaluation should also be performed by the external members of the Administrative Council (including foreign members). HU should also receive an international evaluation of its educational quality assurance systems by SERU (Student Experience in the Research University), an international consortium of universities in which HU participates as a member.</p>	<p>[60]            To maintain and improve the quality of its educational and research activities, by using the evaluation items set in the previous year, HU should conduct a self-check and evaluation. Based on the results of the self-check and evaluation, an external evaluation should also be performed by the external members of the Administrative Council (including foreign members).</p>	IV



I. Operations and financial conditions  
 (3) Objectives relating to self-check/evaluation and provision of information  
 (ii) Objectives relating to disclosure and distribution of information

Medium-Term Objectives	[30] To achieve its accountability to society, HU should actively disclose correct and accurate information relating to the self-check and evaluation of its activities. [31] Implement publicity activities that contribute to enhancement of the recognition and reputation of HU in and outside Japan.
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Medium-Term Plan	Annual Plan	Progress
[61] To achieve its accountability to society, HU should actively disclose the results of the self-check and evaluation of its activities in an easy-to-understand manner via the HU website, the "Japanese College and University Portraits" website and other media.	[61] To disclose and communicate the results of the self-check and evaluation of individual departments in an easy-to-understand manner, the effectiveness of communication via the website should be verified. For such verification, utilize outsiders' responses to questionnaires related to public relations and other appropriate methods.	III
[62] To enhance the recognition and reputation of HU in and outside Japan, HU should utilize its website, social media and other appropriate means to communicate information relating to its educational, research and medical activities, social activities, and their excellent achievements, focusing on communication from users' viewpoints.	[62] Information should be organized by stakeholders so that different types of stakeholders can easily access necessary information. The functions of the Hiroshima University Institutional Repository should be expanded. Publication of books by the Hiroshima University Publication Business should also be expanded to communicate research results of Hiroshima University to the public.	III
[63] Enhance the reputation of HU, by actively posting articles in foreign academic magazines and educational and research information magazines, and by releasing information to other foreign media.	[63] By utilizing the information communication system established in AY2016, post more actively articles and release information relating to excellent research results of HU in foreign academic magazines and other foreign media.	IV

### (3) Notes relating to self-check/evaluation and provision of information

#### Self-check and evaluation

i) Improvement in the self-check/evaluation system to improve the quality of education [Project No. 12]  
Please refer to "Actions for Strategic and Ambitious Objectives and Plan" on pp. 25 and 26.

ii) Activities to ensure international quality of education (student survey by SERU) [Project Nos. 12 and 60]  
Please refer to "Actions for Strategic and Ambitious Objectives and Plan" on pp. 25 and 26.

iii) Self-check and evaluation from a holistic viewpoint for the entire University [Project No. 60]  
In September 2017, individual departments of HU received external evaluations by external reviewers (including at least one member of the Administrative Council) regarding their self-check and evaluation conducted in AY2016. In these evaluations focusing on unique characteristics of education and research activities of individual departments, 117 items that need improvement were pointed out and requests and advice were given to further enhance their characteristics. Based on the requests and advice stated in the evaluation report, individual departments developed and implemented improvement plans. Improvement actions taken by these departments were checked by the all-campus evaluation committee. In addition, from December 2017 to January 2018, the President interviewed deans and directors of individual departments to check the progress of their improvement actions, made requests, and gave advice on improvement of problems as needed to enhance the characteristics of individual departments. Among these improvement actions, the Graduate School of Biomedical & Health Sciences received advice regarding its research activities that it should "take actions to hire more female teachers, young teachers and foreign teachers and provide support to them." In response to this advice, it promoted three female teachers to higher positions, and hired three young assistant professors and one foreign teacher.

The results of the self-check and evaluation of individual departments, the results of the external evaluations of individual departments, improvement actions taken, requests and advice given by the President at the interviews with deans/directors, and actions taken for such requests/advice were reported at the opinion exchange meeting held in March 2018 between external members of the Administrative Council and all officers, deans and directors of the University.

iv) On-going evaluation of educational and research activities of teachers [Project No. 60]  
In accordance with the "Basic Policy for Personal Evaluation of Teachers" (established by the Education and Research Council, HU implemented on-going evaluation of activities of individual teachers by expressing the performance of each individual teacher by individual scores. Aiming to stimulate and improve the quality of educational and research activities, the Policy stipulates that all teachers should recognize their research abilities and that the University should correctly and fairly evaluate and treat excellent researchers and urge under-performing teachers to improve their performance by understanding their problems.

Engagement and achievements of each teacher in educational and research activities, social activities and university management during the previous year are evaluated for items designated by the department and expressed by individual scores. The results of the evaluation

are reflected in the compensation for the teacher.

#### Provision of information

i) Creation and release of a promotion video of Hiroshima University [Project No. 61]  
In November 2017, promotion videos to introduce appealing points of Hiroshima University were created in Japanese and English and posted on YouTube. These videos introduced major notable research activities of HU, students' daily campus life, and beautiful campus landscapes shot by drone. These videos were also utilized in various events to introduce the University, such as the Homecoming Day and the admission examination explanation meetings. As of March 31, 2018, these YouTube videos were viewed by 4,153 viewers (Japanese version) and 2,797 viewers (English version).

ii) Open special websites for new undergraduate schools and new courses [Project No. 61]  
To enhance the recognition of the School of Informatics and Data Science and the Department of Integrated Global Studies of the School of Integrated Arts and Sciences, which were established in April 2018, special Japanese and English websites were created. Promotion videos for the new school and the new department were also created and posted on YouTube (Websites: July 2017, Videos: November 2017).

The Japanese website was visited by 20,418 visitors and the English website was visited by 1,866 visitors.

As of March 31, 2018, viewers of YouTube promotion videos totaled 2,254 for the School of Informatics and Data Science, and 1,680 viewers for the Japanese video and 343 viewers for the English video of the Department of Integrated Global Studies of the School of Integrated Arts and Sciences.

iii) Multilingual interface of the official website [Project Nos. 61 and 62]  
To improve the multilingual communication of information on the official website of Hiroshima University, considering the opinions collected from foreign students in the opinion exchange meeting and other occasions, the Chinese, Arabic and Spanish versions of the Admission Guide for Foreign Students were provided on the website, in addition to the Japanese and English versions (Chinese in June 2017, Arabic and Spanish in December 2017).

To increase the volume of information provided in foreign languages (English, Chinese, Arabic and Spanish), HU updated the English web pages at least once a week, the Chinese pages about four times a month and the Arabic and the Spanish pages about once a month. As of March 31, 2018, visitors to the Arabic web pages totaled 5,801 (compared to 5,295 in AY2016) and visitors to the Spanish web pages totaled 6,411 (compared to 3,843 in AY2016).

iv) Utilization of responses to questionnaires from outside the University related to public relations [Project No. 62]

HU recruited 47 people who were outsiders of the University and five high school teachers to answer questionnaires about public relations. Through these questionnaire surveys, HU collected outsiders' opinions about its newsletters and official website. In AY2017, HU participated in the Web Grand Prix hosted by Japan Advertiser Association, Inc., as the first university participant, and received examinations by web design professionals and junior and high school students. Based on the opinions collected from these questionnaires and website

examinations, HU thoroughly reviewed the method to provide information and improved its official website.

In October 2017, HU started the Public Relations Student Directors system to reflect opinions of students in its public relations activities. HU appointed 23 students as the first Student Directors.

The Public Relations Student Directors wrote articles in friendly writing styles from the viewpoints of students, such as an article targeting high school students featuring interviews with HU students, introduction of alumni (published in the "HU-PLUS" newsletter), report on HU students who play active roles in the community, and introduction of unique researchers in HU. These articles were posted on the official website of Hiroshima University and in other publications.

v) Active use of SNS for public relations activities [Project No. 62]

In December 2017, HU started its official Instagram. Targeting those in their teens and early twenties, HU posted impressive photos to attract the interest of young people. In about four months, followers of the HU account reached 1,346 follows as of March 31, 2018. Followers of major national universities are as follows: 3,860 followers for Osaka University (started use in August 2015), 2,023 followers for Tsukuba University (started use in February 2017), and 1,076 followers for Kyoto University (started use in July 2017). Compared with these universities, it seems that the account of Hiroshima University has attracted relatively strong interest. (The follower data for these universities were as of March 6, 2018.)

HU also continued Twitter and Facebook (in Japanese and English) to distribute information to various users. As of March 31, 2018, HU has 11,753 followers on Twitter (compared to 10,692 in AY2016), 8,380 followers on Facebook (in Japanese) (compared to 6,765 in AY2016), and 1,014 followers on Facebook (in English) (compared to 776 in AY2016).

Followers of major national universities on Twitter are as follows: 29,575 followers for Tokyo University, 17,046 followers for Osaka University, and 13,352 followers for Kyoto University. Followers of major national universities on Facebook are as follows: 33,992 followers for Tokyo University, 18,458 followers for Kyoto University, and 14,512 followers for Tsukuba University.

vi) Active international public relations [Project No. 63]

To actively communicate the research results and activities of Hiroshima University to society, HU started sending articles to newsletters for overseas readers. It sent articles to "QS News-2-Wow-U News Letter," and the "JSPS San Francisco Newsletter" published by the Japan Society for the Promotion of Science on a continuous basis (QS: 14 sent, 2 published; JSPS: 12 sent, 9 published).

HU also issued HU UPDATE (Hiroshima University e-mail magazine) three times during AY2017, which delivered information about results of research activities at HU and other latest topics in English. HU UPDATE was actively utilized in public relations activities. It was distributed at international exchange events, and was also posted on the official website of HU (in English). HU UPDATE was also e-mailed to overseas partner universities under inter-university exchange agreements (about 220 schools) and presidents, directors and other officers of other overseas universities (about 80 schools). Teachers of HU also sent HU UPDATE to their friends overseas in the research and education fields. Through these active publicity activities, HU strove to enhance its reputation.

As an effort to strengthen its ability to communicate information to international society, HU

posted English press release articles about its research activities on EurekAlert! and AlphaGalileo, which are leading online platforms for an international scientific news service, to enhance its international reputation (EurekAlert!: 11 releases/35,347 viewers in total (3,213 viewers on average); AlphaGalileo: 9 releases/26,506 viewers in total (2,945 viewers on average).

I. Operations and financial conditions  
 (4) Objectives relating to other operation-related matters  
 (i) Objectives relating to the improvement and use of facilities

Medium-Term Objectives	[32] To create an appealing campus, facilities should be improved in accordance with the Campus Master Facility Plan and total facility management should be conducted.
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Medium-Term Plan	Annual Plan	Progress
<p>[64]            Create spaces for socializing and active learning for students, teachers and administrative staff members. Old facilities should be renovated by using the government's funding. Energy-saving measures should be taken. Facilities should be properly maintained to secure safe environments for educational and research activities.</p>	<p>[64]            In accordance with the action plan under the Campus Master Facility Plan, HU should renovate the Dentistry Laboratory Building C to improve and maintain the educational and research environment. It should also create spaces for socializing and active learning for students, teachers and administrative staff members. In accordance with the annual plan for facility management, old facilities should be renovated, energy-saving measures should be taken, and facilities should be properly maintained to secure safe environments for educational and research activities.</p>	III
<p>[65]            To effectively use existing facilities, the allocation of space for education activities and research activities should be rearranged. The number of spaces for shared use by all departments should be increased by about 1.5 times the current number of spaces.</p>	<p>[65]            Allocate the space properly for educational activities and research activities. Shared-use spaces for all departments should be expanded, based on teachers' requests for research space and an examination of the actual use statuses of facilities.</p>	IV

I. Operations and financial conditions  
 (4) Objectives relating to other operation-related matters  
 (ii) Objectives relating to safety management

Medium-Term Objectives

[33] To strengthen the safety management system and nurture a safety culture, enhance the awareness of teachers and administrative staff members of risk management, safety and health.

Medium-Term Plan	Annual Plan	Progress
[66] Conduct inspection and evaluation of the safety management system of HU. Enhance awareness of risk management, safety and health by offering regular training and lecture sessions about safety and health to all teachers and administrative staff members every year.	[66] Strengthen the safety and health management system by conducting inspection and evaluation of safety and health management activities of the previous year and by ensuring compliance with applicable laws. Provide enhanced safety education to teachers, administrative staff members, and students to strengthen their awareness of risk management, safety and health.	III

I. Operations and financial conditions  
 (4) Objectives relating to other operation-related matters  
 (iii) Objectives relating to compliance

Medium-Term Objectives	[34] To achieve its accountability to society, HU should implement reliable, transparent, sound and fair operation of the organization and ensure compliance with laws and regulations.
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Medium-Term Plan	Annual Plan	Progress
<p>[67]            HU has established a system to prevent dishonest acts in research activities and measures to prevent abuse of research expenses. Persons engaged in research activities should use this system and these measures to prevent dishonest acts relating to research activities. Such measures include requiring persons who use research expenses to participate in educational programs relating to researcher ethics and compliance with laws and regulations related to research activities, to participate in educational programs relating to prevention of abuse of research expenses, and to submit acknowledgment letters each year.</p>	<p>[67]            In accordance with its system to prevent dishonest acts in research activities and measures to prevent abuse of research expenses, HU should provide educational programs relating to researcher ethics and compliance. Collect from each person who uses research expenses an acknowledgment letter to confirm that the person recognizes that he/she is legally responsible for observing applicable laws and regulations and is subject to disciplinary punishment in the event of non-compliance.</p>	III
<p>[68]            To perform the operation of the University lawfully and properly and gain social trust, HU should continue to provide training and education on handling of personal information. It should also conduct regular awareness activities for students, teachers and administrative staff members about compliance with laws and regulations.</p>	<p>[68]            To secure proper management of personal information, including information that contains a personal identification number, HU should improve the effectiveness of its internal audit, training and education of students, teachers and other employees, and verify them before they will be implemented in AY2018.</p>	III
<p>[69]            Complete the transfer of the main server for administrative operations to cloud computing, as a measure to mitigate vulnerability during normal operation and to secure continuity of the operation in the event of an emergency. HU should manage the security of information by following its Information Security Policy, which was revised during the Second Medium-Term Period, the Procedures for Information Security Management and the Guideline for Using the Cloud Service of Hiroshima University.</p>	<p>[69]            The transfer of the main server for administrative operations to cloud computing implemented in AY2016 should be evaluated and analyzed. Based on the evaluation and analysis of risks relating to the information system implemented in FY2016, measures to strengthen information security should be developed, taking into account the priority of problems, in accordance with the Information Security Policy, the Procedures for Information Security Management and the Guideline for Using the Cloud Service of Hiroshima University.</p>	IV

(4) Notes relating to other operation-related matters
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**Activities relating to facility management**

## i) Facility improvement in accordance with the Campus Master Plan [Project No. 64]

In accordance with the action plan of the Campus Master Plan, the following works were conducted to create spaces and maintain safe educational and research environments:

(Kasumi campus) Renovation of Dentistry Laboratory Building C, renovation of the Health Service Center, and replacement of batteries in the switch room of the Clinical Management Building;

(Higashi-Hiroshima Campus) Renovation of the Graduate School of Engineering Building D4 and water-proof roof renovation of the building of the Graduate School of Advanced Study of Matter,

(Kure) Replacement of a chain of the floating pier,

(Higashi-Senda Campus) Water-proof roof renovation of the General School Building S

(Shinonome) Replacement of lighting fixtures in the library of the junior high school.

Through these works, HU improved its facilities to respond to the needs of more advanced and diversified education and research activities.

## ii) Activities for environmental preservation and active energy management [Project No. 64]

HU changed the 28 outdoor lights of 200 W on the Higashi-Hiroshima Campus to 60 W LED lights. It also changed the 33 air-conditioning units to the newest energy-saving models. By these activities, HU managed to save about 56,400 kWh of energy. HU implemented other energy-saving measures, such as replacement of old air-conditioning units with high-efficiency units, replacement of lights with LED lights, replacement of transformers with high-efficiency transformers, and adoption of double insulating glass. As a result of these measures, HU saved about 56,400 kWh of energy in AY2017, compared with AY2016.

## iii) Effective use, maintenance and management of facilities (including preventive maintenance) [Project No. 65]

## (i) Activities related to the research space request/registration system

To improve the balance of areas allocated to teachers for their educational and research activities and to respond to the need for areas for new activities, the Higashi-Hiroshima Campus created a table of spaces allocated to teachers in individual departments to grasp the current use status and secure spaces for teachers throughout the University. It will continue this space request/registration system to further improve the space allocation to teachers.

## (ii) Examination of the actual use statuses of facilities

HU investigated the actual use statuses of the facilities of the Graduate School of Science and the Graduate School of Biosphere Science to identify problems. HU requested the administrators of these facilities to improve the identified problems.

## (iii) Expansion of shared-use spaces for all departments

As the Health Service Center of the Kasumi Campus moved to another place, the former Center site was designated as an area for flexible use. As a result, additional new areas of 223 m<sup>2</sup> were obtained as shared-use spaces for all departments. Shared-use spaces as of the end of AY2017 totaled 11,682 m<sup>2</sup>, an increased by 1.51 times from 7,689 m<sup>2</sup> as of the end of AY2015.

## (iv) Introduction of a space charge system

In AY2017, HU implemented a space charge system applicable to all departments, on a trial basis, in order to secure financial sources necessary for future facility management and maintenance. A questionnaire survey was conducted for the system in preparation for the

full-scale introduction of the system in AY2018.

**Enhancement of the safety and health management system**

Enhancement of the safety and health management system [Project No. 66]

HU examined the safety and health management activities conducted in AY2016 and confirmed compliance with the applicable laws. In AY2017, HU conducted activities to raise the safety and health awareness of teachers, administrative employees and students. The safety and health goals of HU for AY2017 and topics discussed in the monthly meeting of the Safety and Health Committee were communicated throughout the University. Industry doctors and full-time health managers patrolled the campuses. Safety and health education was provided to new students, new employees and employees who handle chemical and other hazardous materials. Educational and research facilities were also inspected regarding their safety and health protection. Actions were taken to improve the identified problems.

**Activities relating to compliance**

## i) Activities to prevent abuse of research expenses [Project No. 67]

In December 2017, HU conducted questionnaire surveys of officers and administrative staff members to confirm the extent of their awareness regarding prevention of research expense abuse (response rate: 52.4% in AY2016 and 53.2% in AY2017). Based on the results of these surveys, focusing on items with low awareness, compliance managers in individual departments worked to enhance the awareness of employees.

To raise the awareness of teachers and administrative employees, in the new teacher/administrative employee training conducted in April and October 2017, HU provided education on "proper use of research expenses." This training on proper use of research expenses was also provided at the accounting standard study meeting held in November 2017 for employees who would take the National University Financial Accounting Training in the Chugoku/Shikoku Region (Introductory Course).

## ii) Improvement of the system to prevent dishonest acts in research activities [Project No. 67]

A research ethics education seminar, including compliance education, was conducted as a university-wide FD. From September 2017 to January 2018, the Dishonest Act Prevention Action Office held five sessions of the research ethics education seminar, for different types of research fields. HU also required all students to take the Standard Researcher Ethics Education Program when they enrolled in the University and before writing a degree paper, to enhance their awareness regarding ethical standards.

## iii) Training on protection of personal information [Project No. 68]

The following training sessions regarding protection of personal information were provided to teachers and administrative staff members: as a part of the basic training sessions for new employees in April and October, 209 participants; a training session on the Higashi-Hiroshima Campus in December, 84 participants; and a training session on the Kasumi Campus in December, 38 participants. Questionnaire surveys of the participants at these sessions were also implemented. The results of the survey were reflected in the planning of the contents and methods of the training programs for AY2018.

Moreover, before the QTA (Qualified Teaching Assistant) Qualification Training session, a video lecture regarding protection of personal information was given to attending students.

iv) Audit of documents containing personal information and corporate documents [Project No. 68]

The Audit Office conducted an audit, in cooperation with relevant organizations, to confirm the statuses of management of documents containing personal information and corporate documents in individual departments (from February to March 2018, in 17 departments). Departments where improper management of personal information and corporate documents was found by this audit promptly made improvements, responding to the instructions given by the auditors.

To comply with the revised Guideline for Management of Administrative Documents issued by the Cabinet Office, in AY2017 HU reviewed the method for managing its corporate documents and other related matters. Consequently, in the explanation meeting on April 17, 2018, the method for managing corporate documents and other matters were communicated to administrative staff members.

#### Activities to enhance information security

i) Operation of the rules relating to information security [Project No. 69]

• Activities to strengthen the information security system

- (i) The position of the Vice President in Charge of Information was created in April 2017.
- (ii) The Hiroshima University Information Security Regulations were revised. The Vice President in Charge of Information assumes, on a full-time basis, the role of the Chief Information Security Officer, which had been concurrently served by an Executive.
- (iii) The Vice President in Charge of Information proposed information security measures to officers, deans and directors of departments at the round-table meetings of executives and on other occasions to exchange opinions, and conducted enlightenment activities.

Based on these activities, HU conducted an information security education program (classroom lecture) in September 2017 for officers, deans and directors of departments (with an attendance rate of 94.3%).

• Self-check and evaluation of information security, and internal audit and external audit

- (i) A self-check and evaluation of information security was conducted. As a result of thorough communication, the implementation rate of the self-check and evaluation improved by 2.6%. [89.8% (15,586 persons) in AY2016 → 92.4% (16,007 persons in AY2017)]
- (ii) An internal audit of the hospital information system was implemented in November 2017. It was confirmed by this internal audit that the system has been properly and continuously operated in accordance with the applicable rules and regulations.
- (iii) An internal audit of the financial accounting system was implemented in March 2018. It was confirmed by this internal audit that the system has been properly and continuously operated in accordance with the applicable rules and regulations.
- (iv) An internal audit in accordance with the certification of Information Security Management System (ISMS) (ISO/IEC 27001, ISO/IEC 27017: Service Customer) was implemented in February 2018.

Based on the results of this audit, HU made improvements to the management system within the organization and received a certification renewal inspection of the Japan Audit and Certification Organization for Environment and Quality (JACO) in February 2018. The information security management system of HU was evaluated as being operated effectively and continuously, and passed the renewal inspection.

• Development of a plan for information security incident response training

- (i) Based on the Hiroshima University Information Security Basic Plan developed in March 2017, HU developed an implementation plan for "information security incident response training" in August 2017, which is comprised of educational lectures, drills and evaluation, to prepare for the greatest threat of a potential external attack (targeted attack). In accordance with this plan, response drills were conducted in October and November 2017.

ii) Enhancement of information security [Program No. 69]

• Proper management of important information

- (i) In May 2017, to prevent unauthorized access, the system was redesigned to block access to all internal servers from outside the University.
- (ii) At the MEXT Related Parties Chief Information Security Officers Conference held in May 2017, the Vice President in Charge of Information of HU gave a lecture on "Proper management of IP addresses and a system to prevent installation of unauthorized servers" and provided information to participants from other universities and organizations about HU's information security management. In August 2017, the Vice President in Charge of Information reported in the meeting of the HU Information Security Committee the information he acquired at the MEXT Related Parties Chief Information Security Officers Conference and strove for further improvement of information security management at HU.

iii) Response to information security incidents [Project No. 69]

• Provision of education and training (case study of incident prevention)

- (i) In September 2017, HU provided a total of eleven information security training sessions to enhance awareness and knowledge of teachers and administrative staff members regarding information security. A total of 739 people have taken this training program.

Information Security Compliance Education (Follow-up Course) was provided to teachers and administrative employees who have worked at the University for longer than one year (5,136 people) (attendance rate: 96.6%).

To ensure that individuals can swiftly take appropriate actions when an incident occurs, information security response training was conducted, using Blackboard Learn R9.1 (LMS), which was intended for all 3,496 full-time teachers and employees. This training was comprised of two steps: a prior lecture and then a drill to respond to an incident. In October 2017, participants learned a method to check the update status of the OS and the anti-virus software via LMS [Attendance rate: 56.8%]. On a later date (November 2017), when they received the announcement to start a drill, the persons who took the prior lecture confirmed the update status on LMS and reported the results of the confirmation. The participation rate was 54.9%.

- (ii) HU provided Information Security Compliance Education (the Freshman Course for new enrollments, and the Follow-up Course for existing students), which was intended for all HU students (16,046 students). The participation rate of each course was 92.2% and 94.8%, respectively.



- Establishment of procedures for quick responses (examples of activities to minimize damage)
  - (i) HU participates in the NII SECURITY OPERATION COLLABORATION SERVICES (NII-SOCS) of the National Institute of Informatics. In AY2017, HU started a system in which if HU receives a notification from NII-SOCS of suspicion of an unauthorized communication, HU cooperates with the telecommunications carrier to block communications from the notified IP address within one hour from receipt of the notification.

In AY2017, HU received 192 notifications from NII-SOCS. It responded to all of these incidents in accordance with this system. As a result, no information security incidents have occurred in AY2017.
  - (ii) In February 2018, HU provided the CSIRT (Computer Security Incident Response Team) members with two sessions of an education and training program to refresh their understanding of the procedures to respond to a notification of unauthorized communication and to respond to an information security incident. The participation rate was 100% for the first session and 91.7% for the second session. As a measure to minimize damage, this training will be continued in AY2018.

**II. Budgeting (including estimation of labor costs), revenue plan and funding plan**

\* Please refer to the financial statements and the financial report

**III. Limit for short-term borrowings**

Medium-Term Plan Attachment	Annual Plan based on the Medium-Term Plan Attachment	Actual Results
1. Limit for short-term borrowings 6,222,074,000 yen 2. Potential reasons Short-term borrowings may become necessary due to a delay in receipt of government subsidies or because unexpected disbursement of cash becomes necessary in order to handle an accident.	1. Limit for short-term borrowings 6,222,074,000 yen 2. Potential reasons Short-term borrowings may become necessary due to a delay in receipt of government subsidies or because unexpected disbursement of cash becomes necessary in order to handle an accident.	Not applicable

**IV. Plan to assign or provide as collateral important assets**

Medium-Term Plan Attachment	Annual Plan based on the Medium-Term Plan Attachment	Actual Results
1. Plan to assign important assets (1) A part of the land for the Amazuyama Apartment Complex (226-101 Ushida Shin-machi 4-chome, Higashi Ward, Hiroshima City, Hiroshima, 117.63 m <sup>2</sup> ) should be assigned. (2) The land for the Hatsukaichi Apartment Complex (2585-9, Jigozen 5-chome, Hatsukaichi City, Hiroshima, 332.73 m <sup>2</sup> ) should be assigned 2. Plan to provide important assets as collateral In connection with the long-term borrowing of funds used for improvement works of the facilities and equipment at Hiroshima University Hospital, certain land and buildings owned by HU should be provided as collateral for the borrowing.	In connection with the long-term borrowing of funds used for improvement works of Hiroshima University Hospital and maintenance of special medical equipment at the Hospital, the land of the HU Kasumi Apartment Complex should be provided as collateral for the borrowing.	In connection with the long-term borrowing of funds used for maintenance of basic and environmental facilities at the Hospital (renewal of the disaster control facilities), and maintenance of equipment at the Hospital (the high-performance computer tomography system), the land of the HU Kasumi Apartment Complex was provided as collateral for the borrowing.

V. Appropriation of surpluses
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Medium-Term Plan Attachment	Annual Plan based on the Medium-Term Plan Attachment	Actual Results
<p>Any surpluses recorded in the annual account settlement should be appropriated to activities to improve the quality of educational and research activities and improve the operation of the organization of the University, subject to prior approval of the Minister of Education, Culture, Sports, Science and Technology.</p>	<p>Any surpluses recorded in the annual account settlement should be appropriated to activities to improve the quality of educational and research activities and improve the operation of the organization of the University, subject to prior approval of the Minister of Education, Culture, Sports, Science and Technology.</p>	<p>Any surpluses recorded in the annual account settlement should be appropriated to activities to improve the quality of educational and research activities and improve the operation of the organization of the University, subject to prior approval of the Minister of Education, Culture, Sports, Science and Technology. The surplus reported in AY2016 (1,053,406,030 yen) will be reversed in AY2018 and thereafter will be appropriated to the program to accelerate hiring of young researchers and the program to improve the educational and research environment.</p>

**VI. Others 1. Facility and equipment plan**

Medium-Term Plan Attachment			Annual Plan based on the Medium-Term Plan Attachment			Actual Results		
Description of facility/equipment	Expected amount (millions of yen)	Funding source	Description of facility/equipment	Expected amount (millions of yen)	Funding source	Description of facility/equipment	Expected amount (millions of yen)	Funding source
<ul style="list-style-type: none"> <li>(Higashi-Hiroshima) Renovation of life-supporting facilities (including electric facilities)</li> <li>(Kasumi) Renovation of life-supporting facilities (disaster control facilities)</li> <li>(Medical) Improvement of the infrastructure and environment (renewal of disaster control systems)</li> <li>Minor repairs</li> </ul>	Total 923	MEXT Facility Improvement Subsidy (191)  Long-term borrowings (72)  Facility Expense Subsidy of the National Institution for Academic Degrees and Quality Enhancement of Higher Education (660)	<ul style="list-style-type: none"> <li>(Kasumi) Renovation of the general laboratory building (dentistry)</li> <li>Liquefied helium stable supply system</li> <li>High-performance computer tomography system</li> <li>Minor repairs</li> </ul>	Total 951	MEXT Facility Improvement Subsidy (582)  Long-term borrowings (297)  Facility Expense Subsidy of the National Institution for Academic Degrees and Quality Enhancement of Higher Education (72)	<ul style="list-style-type: none"> <li>(Kasumi) Renovation of the general laboratory building (dentistry)</li> <li>(Higashi-Hiroshima) Disaster restoration work</li> <li>(Midori)(Attached junior high and high schools) Renovation of school buildings</li> <li>Liquefied helium stable supply system</li> <li>High-performance computer tomography system</li> <li>Minor repairs</li> </ul>	Total 889	MEXT Facility Improvement Subsidy (545)  Long-term borrowings (272)  Facility Expense Subsidy of the National Institution for Academic Degrees and Quality Enhancement of Higher Education (72)
<p>(Note 1) The descriptions and values of facilities and equipment are estimations. Additional improvement or renovation works may become necessary, considering the progress of the projects necessary to achieve the Medium-Term Objectives or the deterioration degree of aged facilities.</p> <p>(Note 2) Expenditures for minor repairs in and after AY2016 are estimated to remain the same as those in AY2015.</p> <p>It is expected that the amounts of the MEXT Facility Improvement Subsidy, the Facility Expense Subsidy of the National Institution for Academic Degrees and Quality Enhancement of Higher Education, and long-term borrowings for each year will vary depending on the progress of the business of the University. Therefore, concrete amounts will be determined in the budgeting for each academic year.</p>			<p>(Note) The values are estimations. Additional improvement or renovation works may become necessary, considering the progress of projects or the deterioration degree of aged facilities.</p>					

**○ Progress of the Plan**

- (Kasumi) As the renovation of the general laboratory (Dentistry) building was postponed to AY2018, there was a difference of 37,521,000 yen between the budget and the actual amount.
- (Higashi-Hiroshima) The disaster restoration work was not included in the annual plan, but as 696,000 yen was received as the initial budget for AY2017, the work was completed by using this budget.

- (Midori) (Attached junior high and high schools) The renovation of school buildings was not included in the annual plan. But the original budget was 94,030,000. This entire amount was carried forward to AY2018.
- The liquefied helium stable supply system was completed as scheduled.
- As a result of bidding, the actual cost of the high-performance computer tomography system was lower than the budgeted amount by 24,840,000 yen.
- Minor repair works were completed as scheduled.

VI. Others 2. Personnel plan
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Medium-Term Plan Attachment	Annual Plan based on the Medium-Term Plan Attachment	Actual Results
<p>(1) Strategic allocation of internal resources Under the leadership of the President, transfer the management of labor costs of teachers from individual departments to central management in order to strengthen education and research abilities. Teachers and researchers should be strategically allocated, by using HU's unique achievement-motivated key performance indicators (AKPI®) and other methods that evaluate personal performance of teachers in educational and research activities.</p> <p>(2) Acquisition of diverse and excellent human resources (i) To strengthen its education and research abilities, HU should hire and retain excellent human resources from within and outside Japan. To realize this, more flexible personnel and compensation systems should be adopted, such as an annual compensation system or a mixed compensation system. HU should also increase teachers with foreign nationalities or with teaching or research experience in foreign countries and young teachers (under 40).</p> <p>(ii) By recruitment, transfer, promotion, training and other activities in accordance with the administrative personnel development plan, HU should increase administrative staff members with foreign nationalities or with working experience in foreign countries and develop employees who can provide stronger support to educational and research activities.</p> <p>(3) Realize gender equality (i) Based on the basic policy of the Hiroshima University Gender Equality Declaration, HU should promote a Work-Life Balance of teachers and administrative staff members. HU should strive to receive accreditation for compliance with the "General Employer Action Plan" (third period) of the Ministry of Health, Labor and Welfare under the Act on Advancement of Measures to Support Raising Next-Generation Children in AY2019.</p>	<p>(1) Strategic allocation of internal resources Transfer the management of labor costs of teachers from individual departments to central management by the President. Teachers and researchers should be strategically allocated, by using HU's unique achievement-motivated key performance indicators (AKPI®), the Basic Effort Key Performance Indicators (BKPI®) and other methods that evaluate personal performance of teachers in educational and research activities.</p> <p>(2) Acquisition of diverse and excellent human resources (i) To strengthen its education and research abilities, HU should hire and retain excellent human resources from within and outside Japan. To realize this, more flexible personnel and compensation systems should be adopted, such as an annual compensation system or a mixed compensation system. By planning and implementing personnel deployment in accordance with the Teacher Deployment Policy, HU should increase teachers who work under the annual compensation system, teachers with foreign nationalities or with teaching or research experience in foreign countries and young teachers (under 40).</p> <p>(ii) By recruitment, transfer, promotion, training and other activities in accordance with the administrative personnel development plan, HU should develop administrative staff members. As a part of this plan, HU should also recruit foreign staff members and send Japanese staff members abroad for training to increase the number of administrative staff members with foreign nationalities or with working experience in foreign countries.</p> <p>(3) Realize gender equality (i) Based on the "General Employer Action Plan" (third period) for the period from AY2014 to AY2019, HU should promote use of Work-Life Balance support programs for employees by communicating and holding seminars about these programs and should verify the use status of these programs.</p>	<p>Please refer to "3. Actions for Strategic and Ambitious Objectives and Plans" on p. 32.</p> <p>Please refer to "3. Actions for Strategic and Ambitious Objectives and Plans" on pp. 30, 31, 32 and 33.</p> <p>Please refer to "3. Actions for Strategic and Ambitious Objectives and Plans" on pp. 30 and 31. Please refer to "(1) Notes relating to improvement of operation and efficiency" on pp. 39 and 40.</p> <p>Please refer to "(1) Notes relating to improvement of operation and efficiency" on p. 40.</p>

<p>(ii) To actively post female teachers to decision-maker positions relating to the management of the University, the percentages of female teachers and female managers should be increased.</p>	<p>(ii) To actively post female teachers to decision-maker positions relating to the management of the University, by implementing personnel deployment in accordance with the Teacher Deployment Policy, the percentage of female teachers and female managers should be increased.</p>	<p>Please refer to "3. Actions for Strategic and Ambitious Objectives and Plans" on pp. 33 and 34.</p>
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○ Attached Table 1 (Enrollments in Courses of Undergraduate and Graduate Schools)

Name of Course of Undergraduate or Graduate School	Enrollment Quota	Actual Enrollment	Enrollment Rate
	(a)	(b)	(b)/(a)×100
[Bachelor's Courses]	(students)	(students)	(%)
School of Integrated Arts and Sciences, Integrated Arts and Sciences	520	581	111.7
School of Letters, Humanities	580	649	111.8
School of Education, Cluster 1 (School Education)	680	717	105.4
Cluster 2 (Science, Technology and Society Education)	352	379	107.6
Cluster 3 (Language and Culture Education)	336	361	107.4
Cluster 4 (Lifelong Activities Education)	220	234	106.3
Cluster 5 (Fundamentals for Education and Human Development)	352	385	109.3
Total	1,940	2,076	107.0
School of Law, Law Day Program	580	625	107.7
Evening Main Program	180	206	114.4
Total	760	831	109.3
School of Economics, Economics Day Program	620	682	110.0
Evening Main Program	260	293	112.6
Total	880	975	110.7
School of Science, Mathematics	188	213	113.2
Physical Science	264	298	112.8
Chemistry	236	267	113.1
Bioscience	136	148	108.8
Earth and Planet Systems Science	96	100	104.1
Transfer in the third year within the Department	20	11	55.0
Total	940	1,037	110.3
School of Medicine, Medicine	717	732	102.0
Health Sciences	480	516	107.5
Total	1,197	1,248	104.2
School of Dentistry, Dentistry	318	331	104.0
Oral Health Sciences	160	169	105.6
Total	478	500	104.6
School of Pharmaceutical Sciences, Pharmaceutical Science	228	236	103.5
Medicinal Sciences	88	98	111.3
Total	316	334	105.6

Name of Course of Undergraduate or Graduate School	Enrollment Quota	Actual Enrollment	Enrollment Rate
	(a)	(b)	(b)/(a)×100
[Bachelor's Courses]	(students)	(students)	(%)
School of Engineering, Cluster 1 (Mechanical System Engineering)	420	482	114.7
Cluster 2 (Electrical, Computer and Systems Engineering)	540	590	109.2
Cluster 3 (Chemistry, Biotechnology and Process Engineering)	460	512	111.3
Cluster 4 (Social and Environmental Engineering)	540	583	107.9
Transfer in the third year within the Department	20	37	185.0
Total	1,980	2,204	111.3
School of Applied Biological Science, Applied Biological Science	380	452	118.9
<b>Bachelor's Course Total</b>	<b>9,971</b>	<b>10,887</b>	<b>109.1</b>
[Master's Courses]			
Graduate School of Integrated Arts and Sciences, Integrated Arts and Sciences	120	152	126.6
Graduate School of Letters, Humanities	128	167	130.4
Graduate School of Education, Learning and Curriculum Development	40	47	117.5
Curriculum and Instruction Sciences	160	173	108.1
Teaching Japanese as a Second Language	28	31	110.7
Educational Studies	28	30	107.1
Psychology	38	44	115.7
Higher Education	10	13	130.0
Special Support Education	(Note 1)	1	
Scientific and Cultural Educational Studies	(Note 1)	2	
Language Culture Education	(Note 1)	7	
Lifelong Activities Education	(Note 1)	5	
Higher Education Development	(Note 1)	3	
Total	304	356	117.1
Graduate School of Social Sciences, Law and Politics	48	63	131.2
Economics	56	48	85.7
Management Studies	56	48	85.7
Total	160	159	99.3

Name of Course of Undergraduate or Graduate School	Enrollment Quota	Actual Enrollment	Enrollment Rate
	(a)	(b)	(b)/(a)×100
	(students)	(students)	(%)
Graduate School of Science, Mathematics	44	45	102.2
Physical Science	60	74	123.3
Chemistry	46	94	204.3
Bioscience	48	44	91.6
Earth and Planet Systems Science	20	23	115.0
Mathematical and Life Science	46	58	126.0
Total	264	338	128.0
Graduate School of Advanced Study of Matter, Quantum Matters	50	62	124.0
Advanced Study of Molecular Biotechnology	48	62	129.1
Advanced Study in Semiconductor Electronics and Integration Science	30	36	120.0
Total	128	160	125.0
Graduate School of Biomedical & Health Sciences, Oral Health Sciences	24	36	150.0
Medicinal Sciences	36	38	105.5
Health Sciences	68	73	107.3
Medical and Dental Sciences	24	24	100.0
Total	152	171	112.5
Graduate School of Engineering, Mechanical Systems Engineering	56	75	133.9
Mechanical Science	60	111	185.0
System Cybernetics	68	105	154.4
Information Engineering	74	92	124.3
Chemical Engineering	48	69	143.7
Applied Chemistry	52	82	157.6
Civil and Environmental Engineering	40	60	150.0
Transportation and Environmental Systems	40	59	147.5
Architecture	42	66	157.1
Total	480	719	149.7
Graduate School of Biosphere Science, Bioresource Science	60	60	100.0
Biofunctional Science and Technology	48	93	193.7
Environmental Dynamics and Management	38	34	89.4
Total	146	187	128.0
Graduate School for International Development and Cooperation, Development Science	86	139	161.6
Educational Development and Cultural and Regional Studies	56	79	141.0
Total	142	218	153.5
<b>Master's Course Total</b>	<b>2,024</b>	<b>2,627</b>	<b>129.7</b>

Name of Course of Undergraduate or Graduate School	Enrollment Quota	Actual Enrollment	Enrollment Rate
	(a)	(b)	(b)/(a)×100
	(students)	(students)	(%)
<b>[Doctoral Courses]</b>			
Graduate School of Integrated Arts and Sciences, Integrated Arts and Sciences	60	94	156.6
Graduate School of Letters, Humanities	96	107	111.4
Graduate School of Education, Education and Learning Science	98	126	128.5
Learning Development (Note 2)	9	21	233.3
Cultural Education Development (Note 2)	22	65	295.4
Educational Human Science (Note 2)	18	49	272.2
Total	147	261	177.5
Graduate School of Social Sciences, Law and Politics	15	17	113.3
Economics	24	7	29.1
Management Studies	42	43	102.3
Total	81	67	82.7
Graduate School of Science, Mathematics	33	13	39.3
Physical Science	39	31	79.4
Chemistry	33	23	69.6
Bioscience	36	8	22.2
Earth and Planet Systems Science	15	9	60.0
Mathematical and Life Science	33	16	48.4
Total	189	100	52.9
Graduate School of Advanced Study of Matter, Quantum Matters	36	13	36.1
Advanced Study of Molecular Biotechnology	33	17	51.5
Advanced Study in Semiconductor Electronics and Integration Science	21	15	71.4
Total	90	45	50.0
Graduate School of Health Sciences, Health Sciences	(Note)	13	
Graduate School of Biomedical & Health Sciences, Biomedical Sciences	388	523	134.7
Oral Health Sciences	12	5	41.6
Medicinal Sciences	9	11	122.2
Health Sciences	45	115	255.5
Total	454	654	144.0
Graduate School of Engineering, Mechanical Systems Engineering	27	23	85.1
Mechanical Science	30	29	96.6
System Cybernetics	33	36	109.0
Information Engineering	39	27	69.2
Chemical Engineering	24	25	104.1



Name of Course of Undergraduate or Graduate School	Enrollment Quota	Actual Enrollment	Enrollment Rate
	(a)	(b)	(b)/(a)×100
	(students)	(students)	(%)
Graduate School of Engineering, Applied Chemistry	27	10	37.0
Civil and Environmental Engineering	21	30	142.8
Transportation and Environmental Systems	21	19	90.4
Architecture	21	14	66.6
Social Environmental Systems	(Note 3)	1	
Total	243	214	88.0
Graduate School of Biosphere Science, Bioresource Science	36	43	119.4
Biofunctional Science and Technology	36	26	72.2
Environmental Dynamics and Management	27	18	66.6
Total	99	87	87.8
Graduate School of Biomedical Sciences and Graduate School of Health Sciences, Biomedical Research	(Note 3)	40	
Applied Biomedicine	(Note 3)	21	
Oral Health Sciences	(Note 3)	2	
Total		63	
Graduate School for International Development and Cooperation, Development Science	66	62	93.9
Educational Development and Cultural and Regional Studies	42	38	90.4
Total	108	100	92.5
<b>Doctoral Course Total</b>	<b>1,567</b>	<b>1,805</b>	<b>115.1</b>
<b>[Expert Degree Courses]</b>			
Hiroshima University Law School, Law	76	48	63.1
Graduate School of Education, Professional Development Program for Teachers and School Leaders	40	40	100.0
<b>Expert Degree Course Total</b>	<b>116</b>	<b>88</b>	<b>75.8</b>
<b>[Special Course]</b>			
Special Course on Special Support Education	30	17	56.6
<b>Special Course Total</b>	<b>30</b>	<b>17</b>	<b>56.6</b>

Name of Course of Undergraduate or Graduate School	Enrollment Quota	Actual Enrollment	Enrollment Rate
	(a)	(b)	(b)/(a)×100
	(students)	(students)	(%)
<b>[Attached Schools]</b>			
Hiroshima University Elementary School --- 12 classes	400	379	94.7
Hiroshima University Elementary School, Shinonome --- 18 classes	472	430	91.1
Hiroshima University Elementary School, Mihara --- 12 classes	400	373	93.2
Hiroshima University Junior High School --- 9 classes	360	385	106.9
Hiroshima University Junior High School, Shinonome --- 9 classes	264	249	94.3
Hiroshima University Junior High School, Mihara --- 6 classes	240	238	99.1
Hiroshima University Junior High School, Fukuyama --- 9 classes	360	366	101.6
Hiroshima University Senior High School --- 15 classes	600	612	102.0
Hiroshima University Senior High School, Fukuyama --- 15 classes	600	604	100.6
Hiroshima University Kindergarten --- 3 classes	80	76	95.0
Hiroshima University Kindergarten, Mihara --- 3 classes	80	77	96.2
<b>Attached School Total</b>	<b>3,856</b>	<b>3,789</b>	<b>98.2</b>

(Note 1) Enrollments were no longer solicited for these courses because in AY2016, 1) Special Support Education, 2) Scientific and Cultural Educational Studies, 3) Language Culture Education, and 4) Lifelong Activities Education and Higher Education Development Courses (master's courses, Graduate School of Education) were respectively reorganized into 1) Learning and Curriculum Development, 2) Curriculum and Instruction Sciences, 3) Teaching Japanese as a Second Language, and 4) Higher Education (master's courses).

(Note 2) Enrollments were no longer solicited for these courses because in AY2016, Learning Development, Cultural Education Development, and Educational Human Science (doctoral courses, Graduate School of Education) were reorganized into Education and Learning Science (doctoral course, Graduate School of Education).

(Note 3) Courses for which quotas are not indicated no longer solicit enrollments because they were reorganized or of some other reasons.

○ Progress of the Plan

(1) Progress of the plan relating to enrollment quotas (as of May 1)

The overall enrollment rate of bachelor's courses was generally good at 109.1%.

The overall enrollment rate of master's courses was generally good at 129.7%.

The overall enrollment rate of doctoral courses was generally good at 115.1%.

The enrollment rate of expert degree courses was 75.8%, far below the quota.

The enrollment rate of the special course was 56.6%, far below the quota.

(2) Major reasons for enrollment rates not exceeding 90%

[Expert Degree Courses]

Hiroshima University Law School, Law

(Reasons for under-enrollment)

(1) The numbers of applicants and enrollments in law schools continue to decline in general (students enrolled in law schools in Japan decreased by 153 persons from the previous year).

(2) Successful applicants to the HU Law School who have also passed the examination of another law school in Tokyo tend to choose the Tokyo law school as its competition rate is declining.

(3) Tuition fees of Hiroshima University (a national university) are relatively higher than those of private universities (because they offer programs to exempt all or 50% of tuition fees

(Actions)

In AY2016, the enrollment quota was reduced to 20 students. To increase the number of applicants and the enrollment rate, the University implemented programs to improve learning effectiveness based on a fine-tuned curriculum. It also conducted various public relations activities, such as joint admission examination orientation meetings with other universities. As a result, the number of applicants increased in AY2017 [AY2016: 36 applicants (36 took the examination) → AY2017: 41 applicants (36 took the examination)].

The details are as follows:

(1) Actions to increase applicants and enrollments:

To acquire more applicants and enrollments, the pass rate for the bar examination of HU students should be improved and exceed the national average of the year (and HU should aim to rank within the top 10 in the pass rate for the bar examination for the year.)

To achieve this, the University improved the teaching methods. It developed an integrated educational program that promotes concurrent acquisition of knowledge and training to develop a legal way of thinking. Coaching was provided to students by combining an integrated educational program that provides a study plan corresponding to the learning ability of each student with a learning coaching system.

The HU Law School also improved its education system prudentially but quickly, through collaborating with the Kobe University Law School. In AY2018, it started a new practical curriculum. Specifically, coaching for the bar examination was strengthened. Voluntary seminars coached by young lawyers were implemented by students and graduates to strengthen their logical way of thinking, which is essential to pass the bar examination.

(2) Actions to increase applicants to and enrollments in the HU School of Law

From AY2018, collaborating with the School of Law of Hiroshima University, a special program for undergraduate law students (Legal Professional Development Program) was opened that provides training to develop a legal way of thinking among undergraduates in the second and later years.

Furthermore, explanation meetings and special lectures were provided at the School of Law to establish personal connections.

(3) Stronger measures to prevent declining of admission by successful applicants

The contents of the pre-law schooling provided to successful applicants to the HU Law School were enhanced with the collaboration of the Hiroshima Bar Association and the Kobe University Law School, an affiliated school of the HU Law School. In addition, an ongoing scholarship program was established in FY2018 that grants scholarships to students based on the results of a post-enrollment ability test based on this pre-law schooling to prevent declining of admission by successful applicants.

[Special Course]

Special Course on Special Support Education

(Reasons for under-enrollment)

(1) Due to financial conditions of local governments and other reasons, the number of teachers dispatched by local education boards has been declining, (2) all local governments have employed more teachers recently, and (3) local governments have employed more temporary teachers, anticipating the resignation of a large number of teachers. Under these circumstances, new graduates are offered more career opportunities. Special courses at other national universities are also experiencing the same problem of under-enrollment. On the other hand, the number of children in need of special educational support is increasing. A system to provide special support classes in high school will start in AY2018. By AY2020, the percentage of teachers with a special support school teacher license should be increased to 100% of teachers who teach in special support schools. Subsequently, the percentage of teachers with a special support school teacher license among teachers who teach special support classes should be increased. As the need for special support education has been increasing, the number of applicants to this course has been gradually increasing, although the enrollment rate was lower than the quota.

(Actions)

For the course, the University continued lobbying the education boards of Hiroshima Prefecture, Hiroshima City, and other cities in Hiroshima Prefecture and prefectures in western Japan to encourage them to send incumbent teachers to take this special course.

The University renewed the special course's website, created a leaflet to introduce the course and solicit students, and distributed the leaflet within and outside the University as a part of its public relations activities. In addition, for the special course, the University asked the cooperation of special support schools in Hiroshima Prefecture in handing out the leaflet to students who participated in caring and other experience programs. As a result of these efforts, students from other majors or from other universities have shown interest in acquiring special knowledge about special support education and have enrolled in the course recently.

These ongoing activities to deliver information on the special course are expected to contribute to the improvement of the enrollment rate. (1) In AY2017, the teachers in charge of the course frequently contacted the Hiroshima Prefecture Education Board and municipal education boards in Hiroshima Prefecture to explain the special course and encourage them to send more incumbent teachers to take the course. As a result of these efforts, in AY2017, teachers dispatched by prefectural and municipal education boards took the admission examination to this special course. It is expected that more incumbent teachers will be sent to this course by continuing the lobbying and providing information about this course. (2) For the course, the University created an A-4-size leaflet to introduce the course and solicit students. The leaflet has been sent to major universities offering teacher training courses in Western Japan. The University also asked all special support schools in Hiroshima Prefecture offering caring and other experience programs to hand out the leaflet to university students (including students from other universities) attending the experience programs. Some students who took the admission examination to the special course said that they became interested in the course because of this leaflet. Because its effectiveness has been proven, the University will continue to create and distribute the leaflet next year. (3) Students collected information about this course by visiting its website or by talking with current or former students of the Special Course from other universities. The University will continue to improve the contents of the course's website and the personal contacts with students studying in the course. (4) Enrollment of graduates of Hiroshima University has increased. We will continue to ask for cooperation of other departments and courses to post posters on this course on the walls of student rooms, in addition to halls and bulletin boards.

In AY2017, the University conducted promotion of the special course, targeting teachers in the Graduate School of Education via a mailing list and by putting the leaflet in their letter boxes. In addition, three course explanation meetings were held in December. Some students who attended these meetings from inside and outside HU took the admission examination to the course. The University plans to hold explanation meetings on the course in Hiroshima City in AY2018.