

A Report on the Results of the Activities in Academic Year 2015 and in the Second Mid-Term Goal Period

June 2016

National University Corporation

Hiroshima University



(1) Current situation (as of the end of AY 2015)

Name: National University Corporation Hiroshima University

Locations

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)

Directors

Recent Presidents : Toshimasa Asahara (May 21, 2007 – March 31, 2011)
Toshimasa Asahara (April 1, 2011 - March 31, 2013)
Toshimasa Asahara (April 1, 2013 – March 31, 2015)
Mitsuo Ochi (April 1, 2015 – March 31, 2016)

Number of Executives: Five (May 21, 2007 – March 31, 2011)
Six (April 1, 2011 – December 31, 2013)
Five (January 1, 2014 – March 31, 2015)
Six (April 1, 2015 –)

Number of Auditors : Two (one part time)

University composition

Faculties (11)

Faculty of Integrated Arts and Sciences, Faculty of Letters, Faculty of Education, Faculty of Law, Faculty of Economics, Faculty of Science, Faculty of Medicine, Faculty of Dentistry, Faculty of Pharmaceutical Sciences, Faculty of Engineering, Faculty of Applied Biological Science

“Toyoshiomaru” (training ship)*, Faculty 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 Science of Matter, Graduate School of Biomedical and Health Sciences, Graduate School of Engineering, Graduate School of Biosphere Science, Graduate School for International Development and Cooperation, Law School

Saijo Station (farm)*, Setouchi Field Science Center, Graduate School of Biosphere Science
Takehara Station (marine laboratory)*, Setouchi Field Science Center, Graduate School of Biosphere Science

Institutes (2)

Institute of Biomedical and Health Sciences, Institute of Engineering

Advanced Course (1)

Special Course of Special Support Education

Attached Research Institute (1)

Research Institute for Radiation Biology and Medicine

Hospital

Libraries

Headquarters for Liberal Arts Education

National Joint Usage Facilities (1)

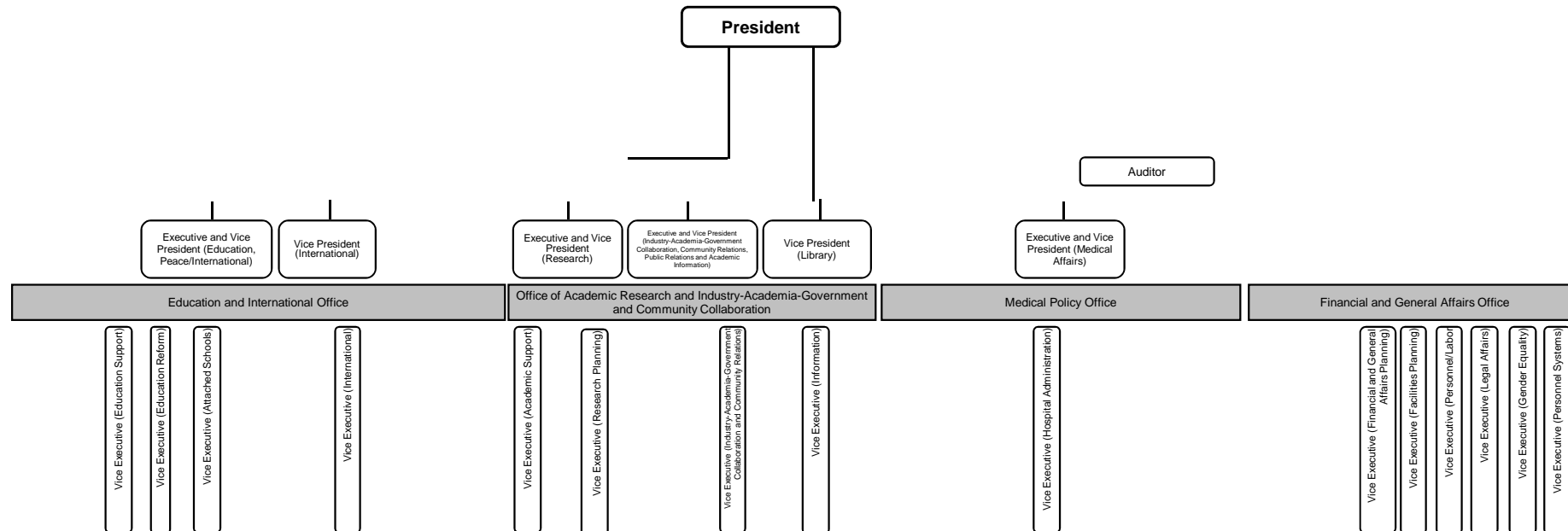
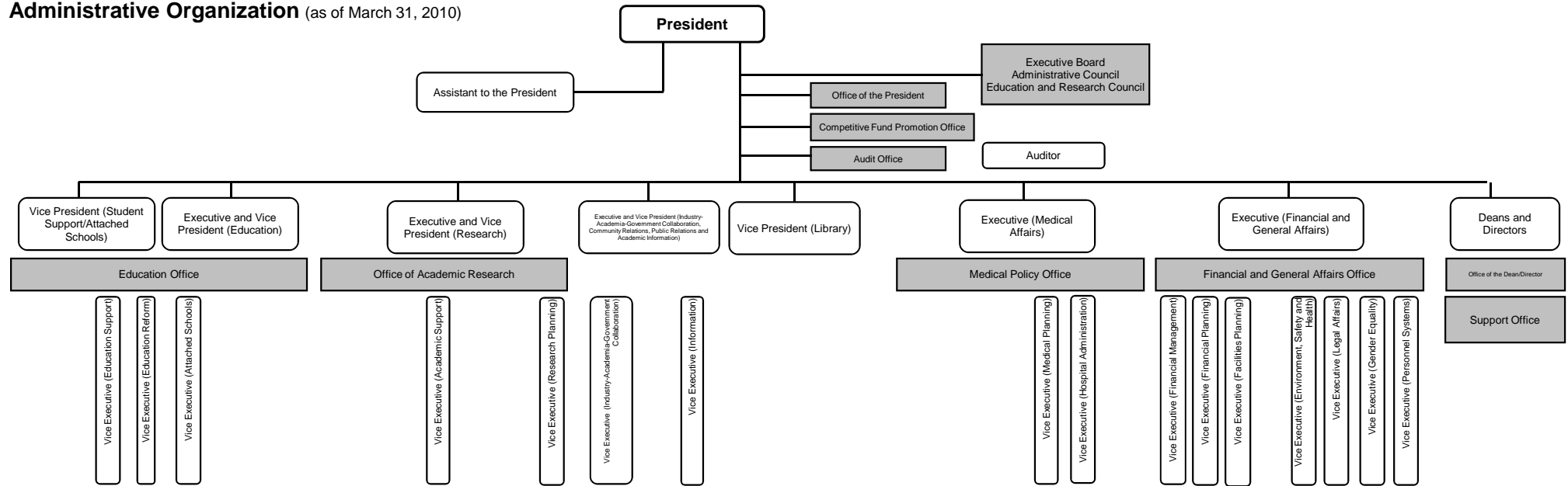
Hiroshima Synchrotron Radiation Center**

Joint Usage Facilities for National Universities in the Chugoku/Shikoku Area (1)

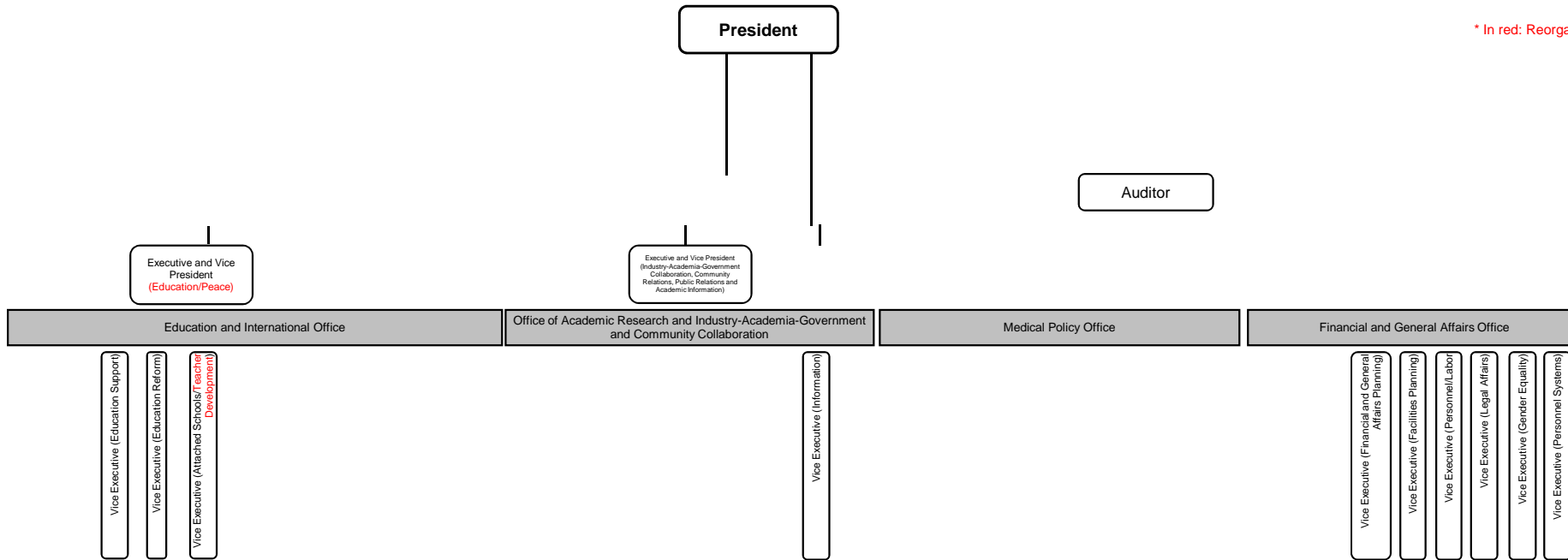
Saijo Seminar House

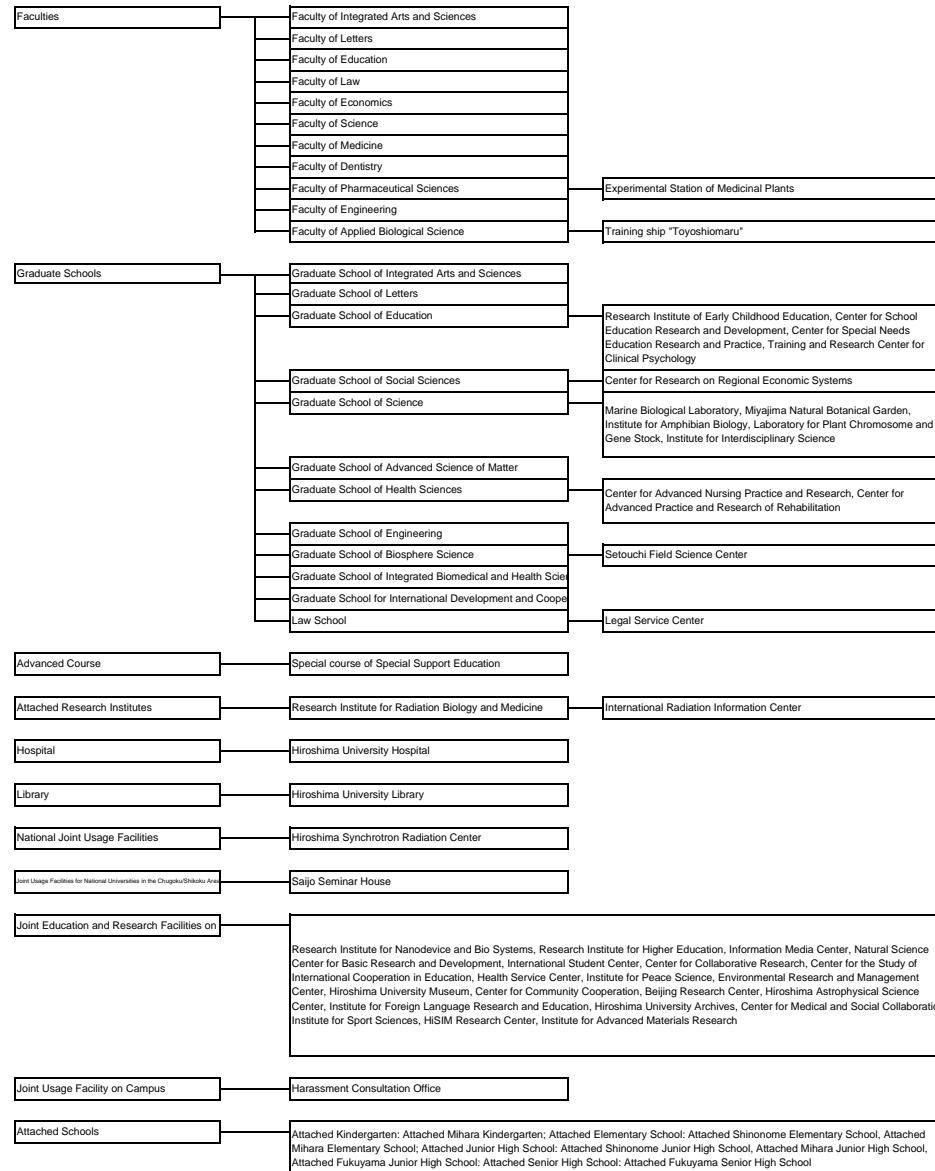
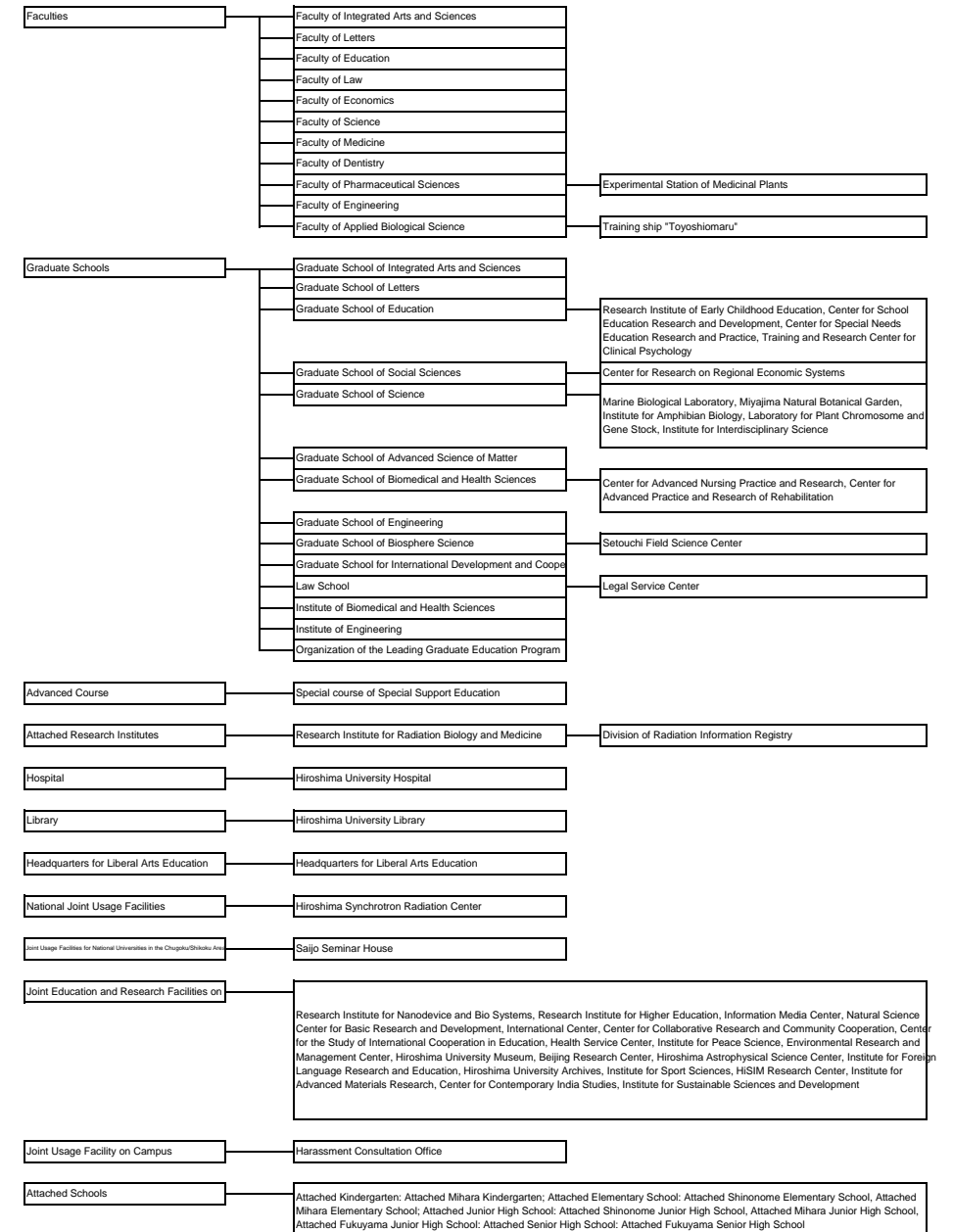
Joint education and research facilities on campus (21)

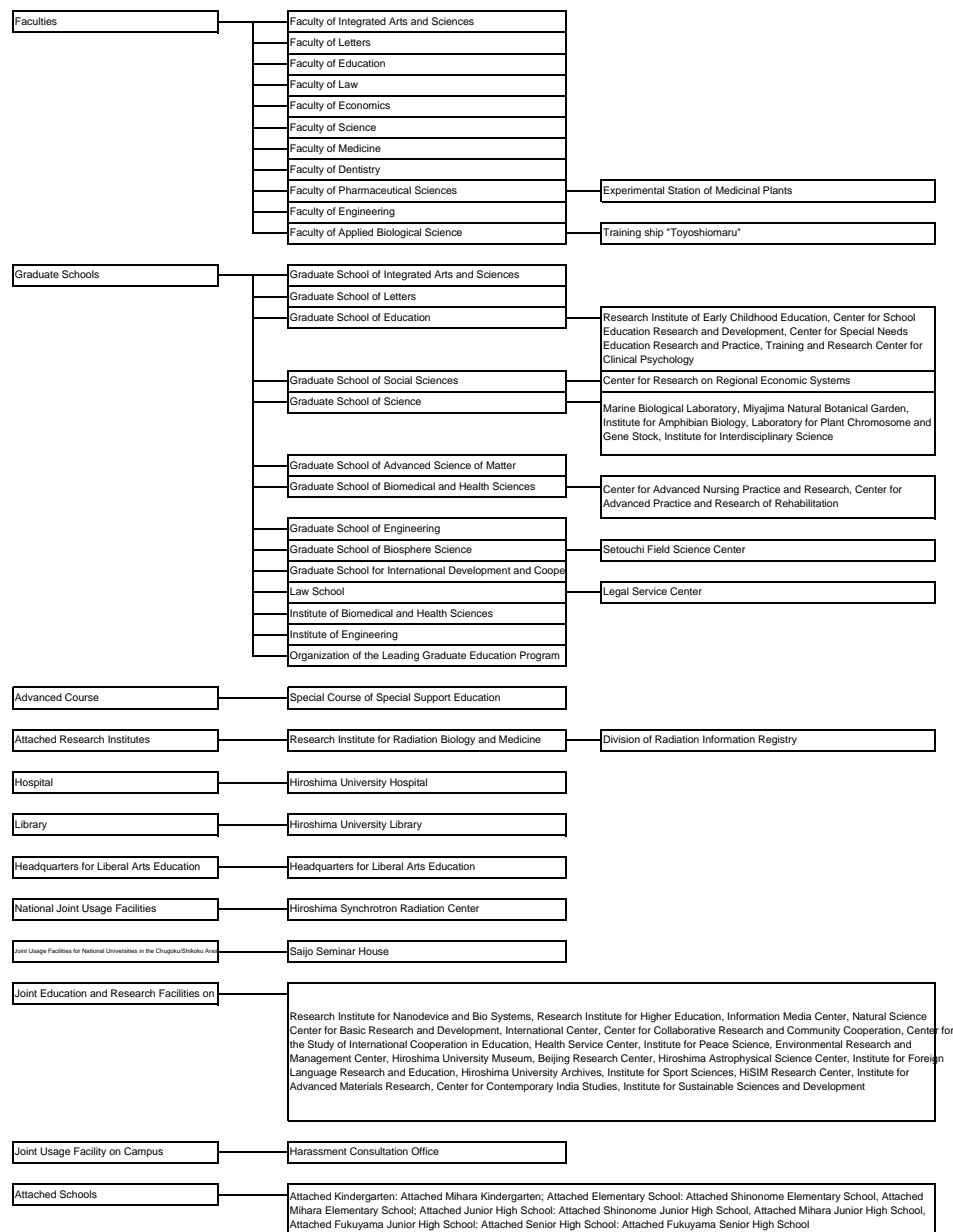
Research Institute for Nanodevice and Bio Systems, Research Institute for Higher

Administrative Organization (as of March 31, 2010)


* In red: Reorganized posts and divisions



Education and Research Organization (as of March 31, 2010)

Education and Research Organization (as of March 31, 2015)


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


Upholding its five guiding principles (p. 2), Hiroshima University promotes the cultivation of quality human resources that contribute to society and scientific research beneficial to humanity's future. At the same time, the University also pursues various activities for its own development based on the Hiroshima University Long-Term Vision, adopted in June 2009 to envisage the University's ideal state in the future.

The Long-Term Vision envisions Hiroshima University in the next 10 to 15 years in various aspects. In academic year 2015, Hiroshima University steadily pursued the Second Mid-Term Plan, adopted in accordance with the Long-Term Vision while incorporating the goals of the First Mid-Term Plan, to achieve the goals of the Second Mid-Term Plan.

1. Qualitative Improvement of Education and Research

(1) Education

<1> Improvement of student admissions

[AY 2010-2014]

In AY 2014, Hiroshima University became the first Japanese national university to adopt Internet-based online application for admission for all the undergraduate faculties and some of the graduate schools. The objectives of this operation were to enhance application form accuracy, increase convenience in the application procedures, including the payment of examination fees, and respond to globalization surrounding universities. This has succeeded in preventing erroneous entries by applicants on the application forms and in enhancing the convenience of the application procedures (in a questionnaire survey, 84% of the respondents found the online application system convenient).

[AY 2015]

Marking the second year of the online application system, Hiroshima University carried out vigorous PR activities, including information meetings with emphasis on the online application system, the production of leaflets and PR video clips, and presentations at boards of education. As a result, the percentage of online applications for general entrance examinations at the undergraduate level reached about 22% (for admission in AY 2016). As the model national university accepting online applications, HU provided other national universities with relevant information. HU also decided to completely switch to online application starting with entrance examinations for admission in AY 2017.

Nine undergraduate faculties admitted students in a recommendation system, basing their evaluation mainly on external standardized English language proficiency examination results. The applicants in this system accounted for 19.0% of the total recommended applicants. Information on this new system was individually presented to the Deans of the Faculties in preparation for its across-the-board adoption (undergraduate level) in AY 2016, thereby reinforcing in-house understanding of the diversification of the admissions procedures.

<2> Improvement of liberal arts education

[AY 2010-2014]

In AY 2010, the Headquarters for Liberal Arts Education was established to improve curriculum design, the guarantee of academic competences, and operational mechanisms in liberal arts education. As guidelines for the improvement of liberal arts education, "The Gist of Liberal Arts Education Reform" was instituted to promote reform.

In AY 2008, the program called "Assignment from the University President" was launched for newly admitted students, who submit a report about their visit to a peace monument. In AY 2014, the best reports were selected from among those submitted in each of the last three years, and their authors, a total of 35 students (11 for AY 2011, 10 for 2012, and 14 for AY 2013), were commended.

In concurrence with the reorganization of Liberal Arts Education subjects, required subjects in peace issues were newly introduced in AY 2011. These initiatives embody one of Hiroshima University's five Guiding Principles, the pursuit of peace.

In AY 2011, the programs of specialization (major) were verified against "The Gist of Liberal Arts Education Reform." In AY 2012, "The Positioning of Liberal Arts Education in the Major Programs" was instituted, and "Basic Policy and Future Concepts for Liberal Arts Education" revised, to further improve HU's operational system of liberal arts education.

[AY 2015]

"A Collection of Practical Examples of Liberal Arts Seminars," introducing actual cases of seminars in Liberal Arts Education subjects, was produced and shared among the faculty members in charge of liberal arts education, to promote active learning in liberal arts education and improve the quality of classes.

<3> International development and improvement of education

[AY 2010-2014]

Social Sciences, and Graduate School of Science participate in the program. They commenced their institutional readjustment and calls for applications in AY 2015. The first class of seven students is expected to enroll in AY 2016.

From July through November 2015, a SERU student experience questionnaire survey was conducted on a trial basis among the students of the Faculty of Integrated Arts and Sciences and the Faculty of Education. A total of some 200 students participated in the survey and responded to questions about their learning environment and consciousness, among other matters. The results were analyzed (in comparison with the survey results from other SERU member overseas schools).

<4> Student support

[AY 2010-2014]

In AY 2013, to lessen the financial burden of students studying abroad, HU decided not to collect, during a pre-specified standard study abroad period, HU's tuition fees from students who are sent abroad on a double-degree program and to pay their tuition fees at their host university. This measure reduced the financial burden of one student.

In AY 2013, a Writing Center was established at the Central Library to improve students' academic writing skills. At the Writing Center, graduate students who underwent training in specialized classes serve as tutors and advise other students on the writing of theses, reports, and other academic texts. A questionnaire survey revealed that 99.5% of the Center users were highly satisfied with the service. In November 2014, the Writing Center commenced offering consultation on academic writing in English by specialized instructors.

In FY 2010, HU launched a system of employing students for the University's administrative tasks as a "Phoenix Assistant" or "PA". Phoenix Assistants are stationed at the Student Plaza, opened in the same year as a place for student interaction, integrated student support, and student-participatory university administration, to offer services responding to student needs. The Student Plaza also promotes university operations from a student's perspective, serving as a venue for mini-concerts and organizing "International Café," a forum of student encounters beyond the boundaries of specialization, years of study, and nationality.

In AY 2014, the Career Center and the Young Researchers' Training Division were integrated into the Global Career Design Center, to centralize the points of contact for support for young researchers and all students in all programs, from bachelor's to doctoral programs, including international students. This is expected to expand and improve career development support for students and young researchers.

[AY 2015]

At the Writing Center, graduate students serving as tutors instruct other students in writing in Japanese. PR for the Writing Center on the occasion of student guidance and during classes resulted in 832 uses, about a 1.5 times increase from the previous year. In October, the Writing Center commenced consultation on writing in English by student tutors. Furthermore, Skype-based online writing consultation was commenced on the Higashi Senda Campus, and English writing consultation on the Kasumi Campus.

The Writing Center received the 2015 Japan Association of National University Libraries Award for its activities that expanded and developed university library functions.

By organizing more than 10 internship guidance meetings and starter seminars previously commissioned to external parties by the Faculties and the Graduate Schools, the Global Career Design Center made progress in integrating career support-related services that the Faculties and the Graduate Schools used to provide separately. The Center also provided career support for graduates by enabling their post-graduation access to the HU portal site "Gakusei Joho no Mori Momiji [Forest of Student Information-Momiji]," which offers information targeting students. The Center also provided job search consultation to 18 HU graduates.

Hiroshima University contributed to the promotion of local community accessibility in various forms and facilitated the pursuit of studies by students in special circumstances, by appointing 26 students as on-campus interns who provided advanced study support with the use of long-distance communication technologies and appointing six students as community interns and sending them to work on Higashi Hiroshima City's leisure support project and Hiroshima City's junior high school study support project. Prior to their appointments, the students had obtained the First Grade Accessibility Leader (AL) qualification in an AL training program organized by the Accessibility Leader Promotion Consortium, composed of nine universities and two private businesses (Secretariat: Hiroshima University). The AL qualification examination and camp (residential training) were carried out in partnership with the Ministry of Education, Culture, Sports, Science and Technology (MEXT).

In October 2013, Hiroshima University added three banking institutions with a nationwide network of branches (Sumitomo Mitsui Banking Corporation, Momiji Bank, and Japan Post Bank) to the list of HU's preferential banking institutions, to improve convenience for tuition fee payers and reduce their financial burden. As a result, as of AY 2015, a total of some 20,000 people used these banking institutions for HU-related banking transactions, leading to better administrative service (lower handling commissions to pay for bank transfers).

<5> Improvement of graduate school education

[AY 2010-2014]

The Phoenix Leader Education Program (Hiroshima Initiative) for Renaissance from Radiation Disaster (adopted in AY 2011 as a MEXT Program for Leading Graduate Schools/Doctoral Program) accepted 25 graduate students (of which 14 were international students), including those newly admitted in AY 2014. The Program aims at training globally operational leaders with the ability to make decisions and act accordingly in optimal response to a nuclear disaster, thereby directing post-disaster reconstruction under clear principles. The Program adopted a qualifying examination system to test the students' basic research competences required for doctoral dissertation authorship. Two students in AY 2013 and 10 in AY 2014 took the examination, and all passed.

The TAOYAKA Program for creating a flexible, enduring, peaceful society (adopted in AY 2013 as a MEXT Program for Leading Graduate Schools/Doctoral Program) accepted 18 graduate students (of which 14 were international students) in AY 2014. The Program aims at training leaders for a peaceful multicultural society, equipped with a deep understanding of the unique cultures of constituent communities that have evolved diversely and the ability to identify and promote, based on such understanding, necessary advanced technologies to overcome societal challenges.

In AY 2013, a new group of basic subjects was established at the postgraduate level, including “Graduate School Basic Subjects” and “Graduate School Common Subjects (Basic).” to enable students to cultivate not only their traditional specialized abilities but also the ability to survey subject matters from a broad perspective and tackle problem solving with a high ethical standpoint. These course subjects were made mandatory, starting with students newly admitted in FY 2014 (in master’s programs or first-half doctoral programs) in all the Graduate Schools, thereby reinforcing the training of students as future highly specialized professionals.

In AY 2012, to carry out self-examination and evaluation in accordance with the characteristics of the respective areas of specialization of the first-half doctoral programs, master’s programs, and professional degree program, the “Annual Report on the Self-examination of the First-half Doctoral Programs (Master’s Programs) and Professional Degree Program and Their Improvement (provisional)” was put together for future improvement of the academic programs.

As for questionnaire surveys that have been conducted since AY 2013 upon the completion of postgraduate programs, a response rate of about 70% has been maintained every year. Survey results have been used as a basis for evidence in the annual reports, leading to continuous improvement.

[AY 2015]

In response to globalization, HU adopted a preparatory policy for the establishment of academic courses entirely composed of English medium course subjects by AY 2019, also determining the number of courses and target values for each Graduate School major.

“Ethics Guide for Academic Research” was revised (booklet produced to introduce postgraduate students to fundamental notions concerning researchers’ basic responsibilities and illegal and unfair conduct to avoid), and its English and Chinese versions were produced and distributed mainly in response to international students’ needs, thereby further enhancing research ethics.

(2) Research

<1> Development into a world-class research center

[AY 2010-2014]

To create in a continuous manner a variety of research centers, ranging from those dedicated to basic research to those specializing in innovation, and to develop such centers into the nuclei of Hiroshima University’s research capabilities, a system was established within HU for forming world-class world centers that promote interdisciplinary collaboration and fusion in research. In AY 2013, three stand-alone research centers and seven incubation research centers were selected for Phase I, and in AY 2014, one stand-alone research center and six incubation research centers were selected for Phase II. To enable these research centers to develop their international research activities, assistance was provided in organizing international symposia, while research results were actively disseminated on a global basis (eight communications) through participation in international press release platforms (such as EurekAlert and AlphaGalileo). Moreover, concentrated support was given to the research centers as a part of the University’s strategic redistribution of resources to further promote their research activities.

[AY 2015]

To promote international research activities in a continuous manner, assistance was provided in organizing international symposia, and research results were actively disseminated on a global basis through participation in international press release platforms (such as EurekAlert and AlphaGalileo). As a result, the number of communications increased from 8 in AY 2014 to 37 in AY 2015.

Strict interim evaluation was carried out at the Phase I (AY 2013) incubation research centers to ensure the continuation of vigorous activities in the future.

To increase international joint research projects mainly at selected research centers, HU actively applied for domestic and international governmental funds intended for international joint research center development projects (one application accepted), and signed comprehensive agreements with overseas universities in preparation for implementation following proposal adoption.

<2> Vitalization of research organizations

[AY 2010-2014]

Hiroshima University introduced an HU-style tenure track to train and hire young excellent researchers mainly through MEXT’s project for research environment development, enabling young researchers to conduct autonomous research. HU’s newly established Institute for Sustainable Sciences and Development made an international open call for candidates, screening candidates and hiring two tenure-track instructors each starting from AY 2010 (nine instructors in total, of which one researcher was of non-Japanese nationality).

The “Home for Innovative Researchers and Academic Knowledge Users (HIKARU Program),” for which Hiroshima University acts as the lead organization, Yamaguchi and Tokushima Universities as co-partner organizations, and other Chugoku/Shikoku-based national universities and private businesses as supporters, was adopted as a MEXT Program for the “Building of Consortia for the Development of Human Resources in Science and Technology” for AY 2014. Within the framework of the HIKARU Program, Hiroshima University made an open call for applicants and hired tenure-track instructors deemed capable of autonomous research and diverse career developments (number of instructors hired in AY 2014: four).

To vitalize international research activities, nurture a sound competitive environment, and enrich the stock of highest-quality researchers, Hiroshima University began developing a university-wide personnel evaluation system featuring numerical individual assessment and linkage between evaluation results and treatment, as means to conduct a strict individual evaluation of the entire academic faculty and encourage individual instructors to fully demonstrate their abilities. In October 2014, evaluation items and methods were determined for each of Science, Engineering, Agriculture, and Medicine-related units, and individual evaluation results have since been linked with personnel treatment (the same began for Humanities units in AY 2015).

In April 2011, the Hiroshima Innovation Center for Biomedical Engineering and Advanced Medicine, established on the Kasumi Campus, commenced operation. Seven Hiroshima Prefecture-based universities, including HU and other organizations in the Prefecture, jointly submitted a proposal for MEXT Regional Innovation Strategy Support Program 2011 (with focus on research capabilities/industrial integration and sophistication; AY 2011-2015). The proposal was adopted. In its interim evaluation, it was recognized as a well-designed program that anticipated changes in the regional industrial structure, took local corporate needs into consideration, and aimed at business conversion and new business creation. The program, whose execution was led by the Hiroshima

In the final evaluation upon its completion, the MEXT Regional Innovation Strategy Support Program, carried out by a consortium led by the Hiroshima Innovation Center for Biomedical Engineering and Advanced Medicine to promote research and development and human resource development, was granted an overall rating of “S.” for the positive effects that the program produced steadily: improvement in research and development capabilities, the reinforcement of local corporations through human resource development, the construction of a mechanism for continuous innovation, and smooth commercialization. These results were realized through the program’s full use of resources, including personnel of a major automaker, close collaboration with the Hiroshima Industrial Promotion Organization, active result-oriented matching of prospective business partners, and collaboration among local corporations through the use of university facilities for common usage.

Hiroshima University introduced a joint research chair system in which funds and researchers are accepted from corporations and other parties, enabling HU faculty members and corporate researchers to work on common research projects as equal partners so as to produce the best possible and realistic application-oriented results. Under this system, two chairs were created (in partnership with Mazda Motor Corporation and Kobelco Construction Machinery Co., Ltd.).

<3> Research support

[AY 2010-2014]

In AY 2012, to reinforce HU’s research support system, a university-wide URA organization was established, comprising Senior University Research Administrators (URAs), URAs, and Associate URAs who support researchers in respective research units. In this organization, URAs with an academic background were mainly posted to enable support for large-scale projects. The University’s organization for reinforcing its research capabilities was optimized through the combined placement of clerical and specialist URAs expected to work in collaboration. In AY 2014, assistance commenced for research areas headed by research centers, Distinguished Professors (DPs), and Distinguished Researchers (DRs) in applications for external funds. A university-wide support system was also established to vitalize international research activities. It commenced assistance in applicable areas.

[AY 2015]

Applications were made for large external funds and Grants-in-Aid for Scientific Research of the Japan Society for the Promotion of Science (KAKENHI), and support activities were carried out for subsidized research proposals. Science Communicator Interns were hired mainly for research centers, DPs, and DRs to work with URAs, thereby providing concentrated support for international research PR activities.

<4> Effective use of research facilities

[AY 2010-2014]

The effective use of HU’s research facilities was promoted, while technical support for research facilities was reinforced (Research Facility Support Committee, chaired by the Executive in charge of research). Additional joint usage facilities were registered with the Network of Universities for Collaboration in Research Facility Use (from 4 units of equipment in AY 2010 to 63 units in AY 2014; 21 registered research units in AY 2010 to 235 in AY 2014; 119 registered users in AY 2010 to 1,156 in AY 2014).

To promote the joint use of research facilities, including use for commissioned analysis, technical

staff members were newly hired and assigned to joint usage facility support duties (six employees in AY 2014).

The Research Facility Support Committee made a list of research facilities to be procured on HU’s budget, and eight units of equipment were renewed, and 19 units of equipment were recovered for reuse.

The activities mentioned above largely increased the number of cases of joint usage and commissioned analysis (from 33 in AY 2010 to 12,466 in AY 2014).

In AY 2014, five universities in the Chugoku area commenced the mutual use of commissioned analysis on the Chugoku Area Bio Network as a model for common use promotion.

[AY 2015]

A questionnaire survey was conducted about the university-wide research facility support system and related activities that had taken place, involving all constituent members of the University.

Survey results were compiled.

Representatives of five universities in the Chugoku area held a meeting about the mutual use of commissioned analysis on the Chugoku Area Bio Network to examine its current situation and future challenges. The attendants then discussed future improvement measures to make the service widely known in the related research communities.

(3) International exchange and contribution to society

<1> Improvement of international exchange

[AY 2010-2014]

To contribute to HU’s globalization, “Hiroshima University International Strategy 2012” was adopted in FY 2011. International Strategy 2012 was then promoted in a competitive environment by, among other measures, providing concentrated assistance in the form of special project allowances to educational/research units that responded to an open call for proposals for application of the Strategy in concrete projects.

To attract excellent international students and promote academic exchange and international academia-industry collaboration, three additional overseas bases were established in three countries (Indonesia, South Korea, and Taiwan). Other activities were also carried out to put the overseas bases to active use and improve and expand their functions, including the organization of study abroad fairs, the establishment of overseas alumni associations, and the promotion of shared facility usage with other universities.

In AY 2010, HU inaugurated Study Tour Abroad for Realization and Transformation (START) to raise students’ interest in international exchange and study abroad. START, targeting newly admitted students who have little previous overseas experience, features a tour of HU’s overseas partner universities and cities in their vicinities for about two weeks so that the students can experience cultures and environments different from Japan. The number of program participants has increased each year; in AY 2014, 208 students were sent abroad in eight courses.

The Hiroshima University Study Abroad Program (HUSA Program), a short-term international exchange program based on student exchange agreements signed between HU and its partner universities, promotes international student exchange while guaranteeing the quality of education and ensuring credit transfer.

In AY 2013, with Hiroshima University’s international exchange program adopted as a MEXT program, the ASEAN International Mobility for Students (AIMS) Program, HU further increased the number of instances of international exchange. In AY 2014, HU received and sent a total of 120 students on short-term exchange programs.

To attract international students to Hiroshima University, HU inaugurated in AY 2010 a Special Japanese Language and Culture Program of about two weeks. This program, open to international students, features lessons and interactions with Japanese students intended to assist the participants in deepening their understanding of Japanese language and culture. The number of program participants has increased each year, and HU received a total of 171 students in six courses in AY 2014.

Various activities such as those mentioned above doubled the number of Japanese students going abroad from AY 2010 to AY 2014. At the same time, the number of international students accepted at HU, which dropped temporarily following the Great East Japan Earthquake in 2011, has been steadily increasing (annual figures indicated in the table below).

AY	2010	2011	2012	2013	2014	2015
Number of students sent abroad	257	446	587	609	655	592
Number of international students accepted	1,655	1,628	1,705	1,678	1,824	2,026

[AY 2015]

Hiroshima University International Strategy 2012 was further promoted following HU's designation in the Top Global University Project in AY 2014. Concentrated assistance was provided to respective units' activities aimed at achieving the goals of the Top Global University Project, such as the establishment of double-degree and joint-degree programs.

To further expand and improve HU's overseas bases, in February 2016 the University signed an agreement for cooperation with the Association of Indonesian Alumni from Japan (PERSADA), establishing the HU-PERSADA Collaboration Project Center within the Association. In March 2016, the Hiroshima University Cairo Center was established on the campus of Cairo University, Egypt. This brought the total number of HU's overseas bases to 11 in nine countries.

Spurred by the Top Global University Project, Hiroshima University's characteristic international student exchange programs have been further enriched.

The START Program, in which a new course commenced with Thailand as a new host country, sent abroad a total of 212 newly admitted students in eight courses. The short-term HUSA Program maintained its scale, sending and receiving about 120 students in total while guaranteeing the quality of education and enabling credit transfers. The Special Japanese Language and Culture Program accepted 213 students in seven courses. HU and Ritsumeikan University commenced deliberations on a partial joint organization of the Program, which was carried out on a trial basis in the winter.

<2> Contribution to local communities through education and research results

[AY 2010-2014]

In November 2010, the Association for the Promotion of Academia-Industry-Government Collaboration was established to further contribute to local communities, and especially the local industrial community. At the end of AY 2014, the Association's members reached 133, which increased by 89 from the end of AY 2010.

To improve Hiroshima University's collaboration with the industrial and governmental sectors and better disseminate information relating to HU's research and technological seeds, the following activities were carried out:

- (1) In September 2011, HU's Integrated Technology Information System (database), "HIMAWARI," commenced operation, thereby reinforcing Hiroshima University's information dissemination. The database features enhanced convenience and information search attributes, such as the provision of information on tangible research results, links to external websites relating to Grants-in-Aid for Scientific Research of the Japan Society for the Promotion of Science (KAKENHI) and patent information, and a function that allows HU academic faculty members to directly input research information.
- (2) To disseminate information on academia-industry collaboration, HU published an e-magazine, "Hiroshima University Quarterly Technology Newsletter," on a monthly basis for its Japanese version and on a quarterly basis for its English version.
- (3) In September 2011, *A Collection of Hiroshima University Research Achievements* was published in Japanese and English as a tool conducive to HU's collaboration with the industrial t .Tf9.726740 TD-(a 32.0008 Tc.00250(ind0al t<007b>2 T067 0 TD-.89Tc.0032 Tw(((3))-233.4(

Activities as a Local Tertiary Radiation Emergency Medical Institution

In response to the Radiation Emergency Declaration, Hiroshima University set up its Radiation Emergency Medicine Committee in March 2011, commencing support activities. On the same day, HU also sent a radiation emergency medical team, while maintaining the dispatch of medical teams. In the disaster-affected areas, the HU personnel carried out the following activities: planning of contamination screening, data collection and compilation, health consultation for local residents, children's thyroid gland examination, initial assessment of injured irradiated individuals and instruction in decontamination, decision making on the transfer of injured individuals and accompanied transfers, and instruction on and response to the injured at the relay station in the temporarily off-limits area around Fukushima Daiichi Nuclear Power Plant.

Technical support for Fukushima Medical University

For three years from AY 2012 to 2014, HU provided technical support for the development of a dose monitoring system in the low-dose area, contributing to the development of a radiation impact imaging system.

Long-term support

The Phoenix Leader Education Program for Renaissance from Radiation Disaster (adopted in AY 2011 as a MEXT Program for Leading Graduate Schools/Doctoral Program) had a total of 25 postgraduate students (of which 14 were international students), including those newly admitted in AY 2014. The students pursued an educational curriculum that included practical exercises, such as fieldwork in disaster-affected areas.

As part of the research activities within the Phoenix Leader Education Program, AY 2013 saw the launch of a survey on, and activities for improving, the physical strength and fitness of elderly residents in temporary housing units in the radiation disaster-affected areas. In AY 2014, the Program students conducted a survey on the motor ability of elderly residents in temporary housing units in Minami Soma City in collaboration with the Municipal General Hospital and the Social Welfare Council of Minami Soma City. To deal with the environmental contamination caused by radioactive matter released during the Fukushima Daiichi Nuclear Power Plant accident, the students conducted research to elucidate the dynamics of radioactive cesium. The research results were presented at the Ecological Society of Japan meetings held in March 2014 and March 2015.

Support for disaster-affected students

In AY 2011, Hiroshima University set aside a section of its student residences to accommodate disaster-affected students. From June 1, 2011 to January 27, 2012, one student was accepted tuition free.

Moreover, students from disaster-affected households were exempted from tuition fees and the full amount of admission fees. From AY 2011 to AY 2014, a total of 56 students were exempted from tuition fees, and six students, from admission fees.

Dispatch of student volunteers

In AY 2011, on four occasions Hiroshima University dispatched a total of 80 students belonging to the student volunteer organization, Operation *Tsunagari* (Ties), dedicated to relief to the victims of the Great East Japan Earthquake. In disaster-stricken areas, the student volunteers engaged in mud removal, weeding, cleanup, and other restoration-related tasks, as well as support for the search of missing persons, support for the local fishery industry, academic assistance to children, active listening of evacuees' accounts, and the organization of recreational events.

In AY 2012 and onward, Operation *Tsunagari* member students continued to visit disaster-affected areas (the fifth to ninth teams, 96 students in total) to carry out field support activities in collaboration with local organizations.

In AY 2014, the "Watari Project," conducted by Operation *Tsunagari* with senior high school students in Miyagi Prefecture in temporary housing, was honored with the Student Volunteer Award by the Soroptimist Japan Foundation.

[AY 2015]

Establishment of the Research Base for Radiation Accidents and Medical Science

For six years from AY 2010 to AY 2015, Hiroshima University's Research Institute for Radiation Biology and Medicine carried out research activities as a certified base for radiation impact and medical science. In January 2016, to use this foundation as a way to make better scientific responses to needs resulting from the Fukushima nuclear disaster, the decision was made to establish a new research base: in April 2016, the HU Research Institute, Nagasaki University Atomic Bomb Disease Institute, and Fukushima Global Medical Science Center at Fukushima Medical University jointly established the network-type Research Base for Radiation Accidents and Medical Science, to establish a scientific foundation for advanced interdisciplinary research into radiation disasters and medical science and to contribute to Japanese society and the international community through its research achievements.

In February 2016, the three university research institutions signed an agreement concerning research base operation and future improvement and launched an open call for research themes for the new Research Base to work on with research scientists across Japan.

Support for Fukushima Prefecture's health management Survey

Prof. Toshiya Inaba of Hiroshima University's Research Institute for Radiation Biology and Medicine has been serving on the Fukushima Prefecture Health Management Survey Committee in connection with surveys conducted by Fukushima Prefecture to maintain and enhance the health of local residents affected by the Fukushima nuclear disaster. Prof. Kenji Kamiya, of the same HU Research Institute, has been serving as the Deputy Director of the Radiation Medical Science Center at Fukushima Medical University, which actually conducts the health management survey.

Dispatch of experts

Following the Fukushima nuclear disaster, Prof. Kenji Kamiya of Hiroshima University's Research Institute for Radiation Biology and Medicine was commissioned by Fukushima Prefecture to serve as radiation risk management advisor. Prof. Kamiya gave lectures and seminars concerning radiation risk to the general public and municipal council members.

Long-term support

Hiroshima University provided the Municipal General Hospital and the Social Welfare Council of Minami Soma City with the measurement results collected within the framework of the survey about the motor ability of elderly residents in temporary housing units conducted in AY 2014 in Minami Soma City as part of the educational and research curriculum of the Phoenix Leader Education Program for Renaissance from Radiation Disaster. The Program also contributed to Minami Soma City's health maintenance campaign targeting its elderly residents, by organizing, at the city's request, lectures on the significance of fitness walking and workshops on health maintenance. The Program students continued the research project concerning radioactive environmental contamination following the Fukushima nuclear disaster, surveying the movements of radioactive cesium in the local forests. Their findings were presented at the Ecological Society of Japan meeting held in March 2016.

Support for disaster-affected students

HU continued to exempt students affected by the Great East Japan Earthquake from tuition fees, which benefitted a total of two students.

Dispatch of student volunteers

HU continued to dispatch members of the student volunteer organization Operation Tsunagari (the 10th to 12th teams, a total of 33 students) to engage in support activities in collaboration with organizations in affected areas.

(5) University Hospital

<1> Activities for the improvement of education and research functions

[AY 2010-2014]

A questionnaire survey was conducted among the medical interns. The results were analyzed to discern changes in their desired career paths and future intentions with an eye to revising the training program and improving their treatment. Also based on survey results, seminars for first- and second-year medical interns were conducted at the rate of about twice per month to assist them in achieving their goals in postgraduate clinical training.

As a Local Tertiary Radiation Emergency Medical Institution, Hiroshima University Hospital encourage its physicians, nurses, radiological technicians, and other personnel to attend overseas training programs and specialized seminars to assist them in developing into professionals fully responsive to the needs of radiation emergency medicine.

[AY 2015]

For female medical interns and students, HUH hosted lunches and exchange meetings with women physicians in collaboration with the Hiroshima Prefecture Community Medical Support Center and the Hiroshima Prefecture Medical Association, to provide future physicians with the opportunity to meet their role models and discuss their anxieties and uncertainties about future career paths.

Professor posts were newly established and a dedicated Center Director was appointed at the Center for Integrated Medical Research to reinforce HUH's clinical research promotion system. HUH signed an inter-departmental exchange agreement with the School of Medicine at Airlangga University in May and with Dr. Soetomo Regional General Hospital in June, both located in Indonesia.

On March 4, HUH signed a comprehensive partnership agreement with the Pharmaceutical and Medical Device Agency (PMDA) to contribute to promoting Japan's regulatory science.

<2> Activities for higher-quality medical services

[AY 2010-2014]

An on-site survey was conducted at the respective departments to review HUH's current situation and improve its functions within the framework of an ISO skill improvement training program. The survey findings and detected areas for improvement were put together as future tasks, which serve as the base for activities aimed at operational improvement and functional enhancement.

HUH promoted projects based on the Hiroshima Prefecture Community Medicine Regeneration Plan in collaboration with Hiroshima Prefecture, Hiroshima City, the Medical Associations, and other parties toward the ultimate goal of overcoming challenges in community medicine (for details, refer to Special Remarks about the University Hospital, <2>, p. 58).

As a local center for cancer treatment, HUH organized seminars for local healthcare professionals involved in cancer treatment. To reinforce its collaboration with the local medical community and promote role sharing, HUH made efforts to expand its network of collaborative medical

institutions in connection with the introduction of collaborative clinical pathways for cancer treatment.

On February 8, 2013, HUH was designated as a "childhood cancer base hospital," being the main player in childhood cancer treatment in the local medical community. HUH purchased a plot of land near the Kasumi Campus from Hiroshima City and built a long-term residential facility, Hiroshima University Hospital Family House, where patients can receive medical care while living with their families in home-like settings (completed in March 2015, operation commenced in May 2015). HUH's new consultation ward was built (completed in April 2013, operation commenced in September 2013) to respond to future medical care needs. The completion of the new consultation ward directly enhanced the functions of the medical services: the outpatient consultation sections of the general medical and dental departments were integrated, the number of operating rooms was increased (from 13 to 17), the number of beds for chemotherapy was increased (from 14 to 28), and a new dedicated post-surgery intensive care unit (six beds) was opened. Furthermore, following the opening of the Future Medical Center, which engages in cell therapy and regenerative medicine, and the Sports Medical Center, which takes advantage of HUH's geographical location near the homes of professional baseball and football teams, both also within the consultation ward, a system was put in place to promote explorative medicine and provide advanced medical services, directly linking research achievements with medical practices.

[AY 2015]

HUH promoted projects based on the Hiroshima Prefecture Community Medicine Regeneration Plan in collaboration with Hiroshima Prefecture, Hiroshima City, the Medical Associations, and other parties. The establishment of role-sharing and collaboration mechanisms between HUH and the four key hospitals in Hiroshima City (Hiroshima Hospital, Hiroshima City Citizens Hospital, Hiroshima Red Cross Hospital, and Atomic-bomb Survivors Hospital) led to the construction of the Hiroshima High-Precision Radiotherapy Cancer Center (HIPRAC), where advanced radiotherapy functions are concentrated (HIPRAC established by Hiroshima Prefecture and operated by the Hiroshima Prefecture Medical Association; operation commenced in October 2015).

To promote role sharing among the physicians, paramedical staff, and clerical staff, HUH hired seven medical clerks (who assist physicians in clerical duties).

On November 20, HUH was designated as a base institution for epilepsy treatment in compliance with the Ministry of Health, Labor and Welfare Project for the development of a collaboration system for community treatment of epilepsy.

Within the framework of a project commissioned to HUH by the Japan Agency for Medical Research and Development (AMED), renovation work was carried out to transform a medical device storage room into an intraoperative MRI room to install a high-standard operating room in the operation section on the fourth floor of the consultation ward.

To enhance efficiency in HUH's medication handling duties, the drug reception counter was relocated from the first floor of the consultation ward to the area in front of the dispensing pharmacy of the pharmacological department on the first floor of the inpatient ward, and renovation work was conducted to reuse the vacated area.

As a medical institution designated for Type-I contagious diseases, HUH carried out renovation work of the rooms for contagious disease patients on the third floor of the inpatient ward, reinforcing the hospital's reception.

<3> Activities for sustainable and stable hospital administration

[AY 2010-2014]

HUH representatives attended lectures on hospital administration to acquire knowledge and expertise necessary for administration analysis. They also attended lectures on medical fees, using

collected data for surveys and analysis. To deepen the understanding of HUH personnel of the insurance coverage of medical treatment, in-house seminars are held for them in a drive to optimize practices.

HUH participated in study meetings of national university hospital personnel in charge of purchasing (organized by the Database Center of the National University Hospitals) to acquire negotiating skills to improve the hospital's purchasing power.

As a Local Tertiary Radiation Emergency Medical Institution, HUH participated in projects aimed at promoting collaboration with the regional radiation emergency network (comprising prefectures in which nuclear power plants are located and their adjacent prefectures in Western Japan), projects for awareness raising and diffusion relating to radiation emergency medicine, and the Response and Assistance Network (RANET) of the International Atomic Energy Agency (IAEA).

In response to the large-scale landslide that occurred in the northern part of Hiroshima City on August 20, 2014, HUH sent the Disaster Medical Assistance Team (DMAT), nurses, and the Disaster Psychiatric Assistance Team (DPAT) to the disaster site, sent HUH personnel to work with Hiroshima Prefecture's public health team, and conducted deep vein thrombosis (DVT) screening at the evacuation station in collaboration with teams mainly from Niigata University and Fukui University. HUH also held DMAT review meetings concerning the landslide with prefectural offices, fire departments, and disaster base hospitals in Hiroshima, Yamaguchi, and Shimane Prefectures.

[AY 2015]

Using the DPC analysis benchmark system EVE, HUH analyzed data on patients discharged in AY 2014 to whom the Diagnosis Procedure Combination (DPC)/Per-Diem Payment System (PDPS) were applied for medical fee assessment. The analysis concerned the ten most frequently occurring diagnostic categories in the respective departments, the numbers of days of hospitalization as compared to the national averages, and the distribution of differences from average output values. Analysis results were compiled in documents, including bubble charts, and distributed to the respective consultation departments with commentaries.

Using Medical Code (MC), a hospital administration support system, HUH analyzed the patients hospitalized in AY 2014 in terms of the ten most frequent diagnostic categories in the respective departments following the MDC6 classification and income and expenditure balance by DPC. Analysis results were then compiled in documents, including bubble charts, indicating income, expenditure, and profit and distributed to the respective consultation departments with commentaries.

Based on actual inventory results, HUH conducted a comparative study of inventory-based amounts and the balances on the books, followed by a factor analysis. Concerning one of the factors for the differences, data input omissions, HUH looked into the placement of orders for syringes and the omitted input of order cancellations and, confirming the need for remedial actions, put in place measures for effectuating thoroughly accurate inputs and eliminating differences. The stock rates were calculated by department, and drugs with high stock rates were listed for stock reduction measures, such as readjustment of the designated quantities of stock and purchase and the number of items.

At the 25th meeting of the Nuclear Regulation Authority (NRA) held on August 26, Hiroshima University was designated as a nationwide institution specializing in nuclear disaster medicine, an Advanced Radiation Emergency Medical Support Center, as well as a Comprehensive Nuclear Disaster Medical Support Center.

Upon the introduction of angiographic equipment and CT equipment, HUH made a call for bidders on the condition that a maintenance contract would be signed and with equipment specifications, including maintenance features, in consideration of income and expenditure balances, thereby reducing future maintenance costs.

(6) Attached schools

<1> School education

[AY 2010-2014]

Hiroshima University's Attached Schools, intended to be national and regional centers of research and development in the domain of school education, were designated for a range of related research and development projects so that research achievements would be applied to school education.

On the theme of response to globalization, curricula for the subject of English were developed for all the grades in the Attached Elementary School, while the Attached High School, designated as a Super Science High School (SSH) within the framework of MEXT's "Science Literacy Enhancement Initiatives," carried out two-way interactive learning and joint research projects with schools outside Japan. At Fukuyama High School, an educational course was developed for the cultivation of students' critical thinking ability.

In the domain of education for sustainable development (ESD), the Attached High School continued its activities as a UNESCO School, while Shinonome Elementary School conducted activities aimed at developing the pupils' sense of community on the theme of "ESD creation for children as future leaders of society founded on mutual respect and solidarity."

In the domain of career-oriented education, Mihara Kindergarten and Elementary and Junior High Schools jointly conducted integrated research, development, and practice focusing on pupils' self-development, while Shinonome Junior High School developed educational contents and methods for its special needs classes toward the goal of leading the pupils to social and occupational autonomy.

The number of projects in the five-year period at the Attached Schools designated for research and development projects and the Super Science High School (including projects in progress) was 12. During the same period, the Attached High School received the School Award of the Hiroshima Prefecture Science Awards four times.

In AY 2011, the Hiroshima University Attached School Evaluation Committee was established with both internal and external members to improve the quality of education and research at the Attached Schools and reinforce their functions. The Committee conducted field surveys every year to make proposals and offer advice.

[AY 2015]

On the theme of response to globalization, Fukuyama Senior High School, newly designated as a Super Global High School, launched collaborative learning and surveys with partner schools in Australia and Thailand to develop educational programs for cultivating high-level skills.

In the domain of career-oriented education, in addition to Mihara Kindergarten, Mihara Elementary and Junior High Schools, and Shinonome Junior High School, which had already commenced practical activities, the Attached Elementary School and Shinonome Elementary School conducted practical research about instruction methods aimed at enabling pupils to engage in proactive and collaborative language activities. Following its designation as a model school for inclusive education system construction, Shinonome Elementary School promoted building an educational system that would demonstrate the importance of pupils with and without disabilities learning together. Shinonome Junior High School prepared for V-cube (TV system)-assisted cultural exchange and interactive lessons to be conducted with sister schools in Indonesia and the United States.

The number of projects in the year at the Attached Schools designated for research and development projects, and the Super Science and Global High Schools (including projects in progress), was 7.

Information meetings were held with university instructors as speakers on the acquisition of Grants-in-Aid for Scientific Research of the Japan Society for the Promotion of Science (KAKENHI) to encourage applications for grants. As a result, the number of projects adopted as grant recipients jumped from 9 in 2014 to 22 in 2015.

<2> Collaboration with Hiroshima University and its faculties

[AY 2010-2014]

To promote research into education, a “research project” program commenced, with a call for research project proposals to be jointly conducted by university faculty members and Attached School teachers. About 30 research projects were carried out each year during the period. The Attached Schools accepted student teachers for special needs classes, in addition to student teachers regularly accepted from eight HU faculties (a total of 700 to 800 students per year). The Attached Schools also accepted a total of 115 graduate school students and active school teachers during the five-year period as part of “action research” practical training in the Program for Teaching Profession Advancement, established in the Graduate School of Education in AY 2009.

[AY 2015]

In the “research project” program promoting joint research by university faculty members and Attached School teachers, 42 proposals submitted from all over Japan were screened, and 31 were adopted, leading to joint research projects in diverse areas, including a project for lesson construction for promoting understanding of a sustainable environment through the creation of “safe places.”

The Attached Schools accepted student teachers for special needs classes, along with 801 student teachers for mainstream classes, as well as 12 postgraduate students and active school teachers within the framework of the “action research” practical training. In some school subjects, the student teachers were required to prepare teaching materials in English in response to globalization.

<3> Review of the role and functions of the Attached Schools

[AY 2010-2014]

In AY 2010, an ad-hoc advisory committee was organized with members from within and outside the HU organization to deliberate on the future of HU’s Attached Schools, including their possible reorganization. The committee’s deliberations were compiled in a report to the President in March 2011. Following up on the report, a permanent committee was established within HU for the same purpose, and its deliberations were notified to related parties. In AY 2012 and onward, the committee continued deliberations and informed and consulted related parties.

In AY 2013, the operation of the two attached kindergartens was analyzed; consequently, the decision was made to reduce their enrollment capacities starting from April 2015 to improve the quality of childcare and education and reinforce their functions.

In AY 2012, a research promotion committee was established and commenced its activities to promote the Mid-Term Plan, aimed at the development of elementary and lower secondary educational curricula for the cultivation of qualities and competences required in globally operational human resources and a student teacher training system guaranteeing the quality of teachers. From AY 2010 to AY 2014, a total of 53 teachers were sent to the United States,

Singapore, Finland, and other overseas destinations to conduct surveys at local schools and collect information that would serve as reference for the completion of curricula in AY 2015.

For the Attached Schools to demonstrate their function as teacher training bases in Western Japan, school teachers were accepted up to AY 2014 on a staff exchange program based on agreements signed with Saga, Nagasaki, Fukuoka, Aichi, Gifu, Okinawa, and Hiroshima Prefectures, and Hiroshima, Onomichi, and Fukuyama Cities, and activities were carried out to improve education in these localities.

[AY 2015]

The possible reorganization of the Attached Schools was further examined with reference to the situations of other universities whose attached schools were undergoing reorganization.

The Attached Schools’ research promotion committee completed draft elementary and lower secondary educational curricula for globally operational human resources and a student teacher training system. The results were presented at the Fifth Joint Research Forum for the Hiroshima University Attached Schools and compiled in a research promotion committee report.

Ten teachers from the Attached Schools were sent to overseas schools, taking the lead in pioneering educational practices to observe lessons and collect information. The teachers’ survey findings were then presented at seminars held at their respective schools and compiled in a report and distributed to all Attached School teachers.

In addition to the seven prefectures and three cities with which HU had signed an agreement up to AY 2014, HU signed an agreement for collaboration with Kochi Prefecture to further broaden the scope of exchange, and activities were carried out to improve education in these localities.

(7) National Joint Usage Facilities and Joint Research Bases

1. Research Institute for Radiation Biology and Medicine

<1> Activities and achievements as a research base

[AY 2010-2014]

<Joint usage and joint research>

In AY 2010, the Research Institute for Radiation Biology and Medicine was designated as a base for radiation impact and medical science and commenced joint research projects on six priority themes, including research into the molecular mechanism of genome damage repair. In AY 2012, immediately after the Fukushima nuclear disaster, the Institute commenced research to prevent health damage and contribute to medical responses, by adding to its research portfolio a post-Fukushima emergency research project composed of a study of low-dose and low-dose-rate radiation impact, the development of internal radiation diagnosis and treatment methods, and research and the development of radioprotection agents. The Institute established a center for post-nuclear disaster recovery support research to promote joint research, gathering together scientists from across the country. The Institute also provided an advanced genome analysis service using a next-generation sequencer and published research results and organized international symposia, thereby contributing to society through its research activities and achievements.

[AY 2015]

<Joint usage and joint research>

For the last six years, the Institute conducted a total of 685 research projects as a base for radiation impact and medical science. The Institute also provided an advanced genome analysis service using a next-generation sequencer and published research results and organized international symposia, thereby continuing to contribute to society through its research activities and achievements.

<Human resource development>

The Phoenix Leader Education Program for Renaissance from Radiation Disaster provided training for the cultivation of future globally operational leaders with the ability to make decisions and act accordingly in optimal response to a nuclear disaster, thereby directing post-disaster reconstruction under clear principles.

<Information dissemination>

Information was actively disseminated on the Institute's dedicated website on the availability of facilities, materials, and documents at the base for radiation impact and medical science, as well as calls for joint use and joint research proposals and selection results. The Institute's newsletter was published and distributed to related organizations, scientific societies, and researchers as PR activities.

<2> Independent activities and research results

[AY 2010-2014]

To promote research on the biological impact of low-dose radiation, in AY 2014, the Institute commenced an advanced research program on low-dose radiation impact with 18 research projects. The program was designed in such a way as to draw attention on a global scale, with the appointment of instructors, including invited researchers of non-Japanese nationalities, and the installation of a next-generation sequencer and low-dose radiation device.

[AY 2015]

With the Institute taking the lead, Hiroshima University, Nagasaki University, and Fukushima Medical University jointly established a network-type center for joint use and research, the Research Base for Radiation Accidents and Medical Science. The center applied for designation as a certified research base, which was accorded. The new research base is intended to establish a scientific foundation for advanced interdisciplinary research into radiation disasters and medical science, contribute to Japanese society through its research achievements, and disseminate its research results on a global basis.

The Institute, designated as an Advanced Radiation Emergency Medical Support Center by the Nuclear Regulation Authority (NRA), provided specialized medical consultations to internally radiated patients, externally high-dose radiated patients, and severely contaminated patients, as well as medical support, including dose assessment and radioprotection. The Institute, also designated as a Comprehensive Nuclear Disaster Medical Support Center, coordinated the dispatches of nuclear disaster medical support teams and assisted in the construction of a regional network. These activities greatly advanced the development of Japan's radiation emergency medical system.

In March, the Institute organized a meeting to report on the progress and results of the advanced research program on low-dose radiation impact, on which the entire Institute had worked in its respective areas of specialization. This program is expected to serve as the foundation for collaboration with the Research Base for Radiation Accidents and Medical Science in the construction of new radioprotection criteria based on epidemiological data of irradiated persons and system biology.

Working with Hiroshima Prefecture and Hiroshima City (Hiroshima International Council for Health Care of the Radiation-exposed), the Institute organized a training program for a total of 28 healthcare professionals from South Korea, the United States, Brazil, Iran, and Latvia, contributing to global multifaceted human resource development.

2. Hiroshima Synchrotron Radiation Center
<1> Activities and achievements as a research base

[AY 2010-2014]

<Joint usage and joint research>

- The number of scientists who had come from outside Japan to participate in joint research doubled from 19 persons per year (annual average in the first period) to 38 persons per year (annual average from AY 2010 to AY 2014), indicating the center's steadily progressing globalization.
- With the impact factor (IF) of *Physical Review Letters* (>7), considered to be one of the most prestigious scientific journals in the field of physics, used as the index, the percentage of the papers rated IF>7 of all the papers submitted by the center's scientists almost doubled from 8% (in the first period) to 15% (2010-2014), indicating significant improvement in the center's research results.

<Human resource development>

- The Center assisted young scientists in their professional development as autonomous researchers by hiring seven postdoctoral researchers (on a limited-term contract, five non-Japanese nationals and two women) and three specially appointed assistant professors (on a limited-term contract), and by accepting two non-Japanese visiting researchers (including one woman), one Special Fellow selected by the Japan Society for the Promotion of Science (JSPS), and one international Special JSPS Fellow.

<Information dissemination>

- The Center disseminated information via its website (with pages in English and Japanese), mass media, YouTube (MEXT Channel), and other means; presented its research results at international conferences and workshops (guest lectures and award reception lectures); and promoted interaction with prospective future joint research partners.
- These activities expanded the center's joint research network with domestic and international research institutions almost two-fold, from 30 domestic institutions and 17 overseas institutions at the end of AY 2009 to 56 domestic institutions and 33 overseas institutions at the end of AY 2014.

[AY 2015]

<Joint usage and joint research>

- The center's comprehensive rating as a joint usage/research base was "A" in the term-end evaluation.

<Human resource development>

- In AY 2015, a German postdoctoral researcher was appointed as Assistant Professor (selected in an open international call), who provided research instruction in English to graduate school students.
- The center commenced a new series on its website titled "Activity Report" to summarize each year's research achievements.

<2> Independent activities and research results

[AY 2010-2014]

- Construction of the world's highest-performance equipment
- The center constructed the world's highest-level high-resolution photoemission spectroscopic experimental equipment and high-efficiency spin-resolved photoemission spectroscopic equipment, enabling detection 100 times more efficient than conventionally possible.

Interdisciplinary fusion research

The center commenced a research project for the definition of cubic structures of biological matters under biological conditions through the combination of experimental techniques of condensed matter physics using the characteristics of polarization of radiant light and computing techniques of molecular dynamics. The research results were applied to the structuring of pathogenic proteins of Alzheimer's and other diseases.

[AY 2015]

In a joint research project with Advanced Industrial Science and Technology, the center developed a high-precision full-motorized six-axis cryogenic goniometer, thereby substantially improving the precision of polarization-based high-resolution angle-resolved photoemission spectroscopic experiments.

(8) Joint usage educational facilities

1. Saijo Station (farm), Setouchi Field Science Center

<1> Activities and achievements as a base

[AY 2010-2014 and AY 2015]

Saijo Station, designated as a joint usage educational base by MEXT in AY 2010, carried out the educational activities summarized below:

(Joint usage)

Course title	Outline	Number of registered students				
		AY2011	AY2012	AY2013	AY2014	AY2015
Field exercise in dairy farming	2 credits, 3 nights 4 days, intensive	38	39	37	30	32
Field exercise in agriculture for nurturing respect for life	2 credits, 3 nights 4 days, intensive	34	28	34	25	39
Field exercise in education through food for undergraduate students majoring in childcare and related subjects	2 credits, 3 nights 4 days, intensive				15	38
Field exercise in education through food for childcare professionals	No credits (certificate of completion issued), full day					27
Field exercise in advanced dairy farming	1 credit, 1 night 2 days, intensive		6	3	3	0
Number of non-HU facility users for other purposes		142	134	134	85	59

<2> Independent activities and research results

[AY 2010-2014]

The use of the farm for educational purposes was promoted not only among college students as always done but also among kindergarten children, senior high school students, and the general public.

[AY 2015]

Following its re-designation as a joint usage educational base by MEXT, the station commenced a research project to evaluate the educational effect of field exercises, results of which were presented at meetings of scientific societies specializing in childcare and related subjects.

2. Takehara Station (marine laboratory), Setouchi Field Science Center

<1> Activities and achievements as a base

[AY 2010-2014 and AY 2015]

Takehara Station, designated as a joint usage educational base by MEXT in AY 2012, carried out the educational activities summarized below:

(Joint usage)

Course title	Outline	Number of registered students			
		AY2012	AY2013	AY2014	AY2015
Field exercise in <i>satoumi</i>	2 credits, 3 nights 4 days, intensive	18	18	18	13
Scientific exercise with coastal resources	2 credits, 4 nights 5 days, intensive	3	8	—	13
Comprehensive exercise for learning about Seto Inland Sea agriculture and fishery*	2 credits, 3 nights 4 days, intensive		25	13	14
Number of users for other purposes		135	283	265	290

* Renamed "Comprehensive exercise for learning about Seto Inland Sea fishery" in AY2015

<2> Independent activities and research results

[AY 2010-2014]

The station was used by Ube College (National Institute of Technology) and Yonago College (National College of Technology), in addition to universities. The station accepted users from the University of Tokyo and numerous other universities who used the station for their research projects, graduation projects, master's and doctoral dissertations, and other academic research projects.

[AY 2015]

The station served as the venue of joint seminars and field exercises. It also accepted numerous users from Japan and abroad, including users from the University of Alberta (Canada), who used the station for their research projects, doctoral dissertations, JSPS research projects, and other scientific projects.

3. Training ship "Toyoshiomaru"

<1> Activities and achievements as a base

[AY 2010-2014 and AY 2015]

"Toyoshiomaru" was designated as a joint usage educational base by MEXT in AY 2012. It was used for the educational activities summarized below:

(Joint usage)

Course title

Outline

Cost control

[AY 2010-2014]

In AY 2014, HU's management costs (excluding costs relating to the Hospital) upon the settlement of accounts dropped from the AY 2009 figures by about 570 million yen.

This is mainly because of management cost control in HU's budget and a review of contractual conditions for power supply, which led to the adoption of a multiple-year contract.

[AY 2015]

The direct employment of personnel for campus patrols and other daytime campus security duties formerly indirectly commissioned resulted in an annual saving of about 6 million yen. For the waste disposal service, switching from a volume-based tariff to a weight-based tariff resulted in an annual saving of about 7.9 million yen.

(3) Self-monitoring and evaluation and information dissemination

Verification of self-monitoring and self-evaluation

[AY 2010-2014]

Self-monitoring and self-evaluation were continuously carried out by HU's respective educational and research units. The evaluation and improvement of the educational and research units themselves were assured through annual assessment by external parties in a wide range of aspects, including the units' priority activities and the status of their execution, future visions, and contribution to HU's action plan.

[AY 2015]

External evaluation was carried out from a global perspective with the participation of non-Japanese auditors. The items identified as requiring improvement in the external evaluation reports were examined by the units concerned, and hearings were held with the President on the same subjects.

To construct an evaluation method from a global perspective commensurate with HU's status as a Super Global University, HU invited executives from the Student Experience in the Research University (SERU) Consortium to the University and held workshops attended by HU academic and administrative faculty members as well as other participants from outside HU. Meetings were also held in which HU's evaluation committee chair and the administrative staff exchanged views with the SERU Consortium executives and discussed future development.

Promotion of PR activities

[AY 2010-2014]

HU promoted multilingualism in online PR activities through the active use of the official website. Accordingly, by AY 2013 English and Chinese versions were made available of the most frequently accessed pages on the website (about 300 pages in English and about 380 pages in Chinese).

[AY 2015]

The homepage design of HU's official website was renewed to disseminate information on HU's education, research, and other matters more effectively and further improve viewer convenience. As a part of multilingual website development for more active information dissemination targeting non-Japanese viewers, HU's website for prospective international students, "Explore HU," was made available also in Arabic.

To mark the 70th anniversary of the atomic bombing of Hiroshima, special website pages were created under the title of "70 Years from the Atomic bombing" (in Japanese and English) to publish the President's message and provide information on HU's commemorative projects.

(4) Other matters regarding operational management

Facility development in accordance with the annual development plan based on the Facility Development Grand Design

[AY 2010-2014]

HU's main activities in this regard included the development of the new medical consultation ward on the Kasumi Campus, the renovation of the old outpatient ward and the old central consultation ward, and the renovation of the research and experiment building of the Faculty of Engineering.

[AY 2015]

HU carried out the renovation of the clinical research ward and lecture building "D" of the Faculty of Dentistry on the Kasumi Campus, the seismic renovation of the ceiling of Satake Memorial Hall, and the renovation of the air-conditioning system of the Central Library on the Higashi-Hiroshima Campus.

Improvement of the education and research environment through facility management

[AY 2010-2014]

HU conducted a fact-finding survey on the utilization of university facilities to improve the education and research environment. HU obtained an additional lot of 2,293 m² for flexible spatial use, increasing the total area set aside for the same purpose to 8,717 m².

[AY 2015]

HU considered reviewing the use of facilities to realize most optimal use and propose improvement measures, through a facility use fact-finding survey and the introduction of a use purpose registration system for research space.

Promotion of energy conservation

[AY 2010-2014]

HU replaced old air-conditioning equipment with more energy-efficient models, reducing the University's energy consumption by some 1,212,000 kWh in the five-year period.

[AY 2015]

HU replaced old air-conditioning equipment with more energy-efficient models, reducing the University's energy consumption by some 299,000 kWh per year.

3. Implementation of strategic and ambitious plans

[AY 2014]

HU revised the student information system by attributing numbered codes to all the courses offered at the University, using additional code categories indicating three items of information: (1) level of study, (2) medium language, and (3) discipline and branch.

HU decided to introduce the quarter system to the entire university on a trial basis in AY 2015 and held 32 information meetings for the academic faculty and students.

To attract faculty members who excel in educational and research activities regardless of nationality,

HU adopted a policy of making open calls for applicants for all teaching posts on a global scale, putting together provisional rules for international open calls.

The maximum number of participants in HU's mini-study abroad program, START, targeting newly admitted students who had little previous overseas experience, was increased, largely raising the number of participants from 144 to 208. Meanwhile, HU received 22 students and sent 25 students on the ASEAN International Mobility for Students (AIMS) Program, promoting undergraduate student exchange between HU and universities in ASEAN countries. The Special Japanese Language and Culture Program, organized to attract international students to HU, began accepting students from non-Chinese-ideogram-user countries (India, Indonesia, Vietnam, Malaysia, and Mongolia), largely increasing the number of participants from 82 students from 3 countries/areas to 171 students from 8 countries/areas.

[AY 2015]

In response to the students' diversifying needs with regard to course selection due to the increasing number of international students and other factors, the indication of "Japanese/English" was added to the medium language code categories in the numbered codes for the courses, thereby improving accuracy in the indication of languages of instruction of the courses concerned.

Preparation begun in AY 2014 was maintained for English-language syllabuses, making it possible to anticipate the introduction of 100% English syllabuses in AY 2016.

Regarding the (trial) quarter system, views and proposals for improvement were collected from the educational and research units for examination and compilation. As a result, system modification began so as to avoid the concurrence of the autumn entrance ceremony and the opening of courses in the third term on the same day. The revision of the student information system was completed in preparation for the full-range introduction of the quarter system in AY 2016.

HU decided to make an international open call for applicants for teaching posts on April 1, 2016, and produced "Guidelines for Open Calls for Teaching Posts: Forms and Descriptions" in Japanese and English.

As a result, the percentage of international open calls for teaching posts of all the open calls made on April 1, 2016, was 100% (74/74), and about 40% of applicants were of non-Japanese nationalities, enabling HU to hire instructors excelling in education and research regardless of nationality.

The START program was further expanded with the addition of Thailand as a host country, the number of participants increasing from 208 to 212.

The number of participants in the Special Japanese Language and Culture Program also increased from 171 to 213, with an increased number of students accepted from non-Chinese-ideogram-user countries.

4. Activities in compliance with the "Basic Ideas of the Future Functional Reinforcement of National Universities"

Proactive university reform through governance reform and the President's active leadership

[AY 2013-2014]

In October 2012, HU adopted the Action Plan 2012 to Enhance the Functions of Hiroshima University and has since continued to examine university reform in the accelerated reform period. With regard to important matters that required further examination, the Action Plan 2013 Working Group ("WG") was newly established, with the President, Vice Presidents and Executives as core members. The WG commenced deliberations in June 2013.

In AY 2014, open hearings were held on campus (with some 300 participants) to present the WG's deliberations, activities relating to the University's reform, and future orientation, thereby promoting information sharing.

Later, under the President's leadership, six sub-working groups were created within the WG to draw up a plan (process chart) for achieving concrete objectives toward university reform. The dedicated themes of the six sub-WGs are as follows: (1) educational reform, (2) admission screening, (3) research, (4) globalization, (5) reinforced governance, and (6) liberal arts education review.

After a five-month study period, deliberations by the sub-WGs were put together into a process chart, "Hiroshima University Reform Concept," containing numerical targets and a timeline for the achievement of the targets in the university reinforcement project, the Super Global University Project, and other projects, as a general action plan for raising HU's rank among the best 100 universities in the world in 10 years. The HU Reform Concept was presented at the Education and Research Council meeting in March 2015.

To clarify a path to achieving the goal of making HU among the world's best 100 universities in 10 years, HU adopted its original goal-oriented indices for significant achievements, Achievement-motivated Key Performance Indicators (A-KPI). At the same time, data were compiled on achievements (in AY 2012 and AY 2013) by discipline and educational/research unit to be used as reference for decision making by executive units and other purposes.

[AY 2015]

In June, a working group for the reinforcement of life and bio-related disciplines was established and placed under the President's management, to consider the formation of educational/research units that would take advantage of HU's characteristic and proven educational and research resources in these areas of specialization. The working group conducted field surveys at two overseas universities and nine Japanese universities that had already made progress with similar initiatives. The working group then drew up a proposal for forming educational/research units that would lead to HU's functional reinforcement in life and bio-related disciplines and reported it to the President.

In July, a working group for the reinforcement of humanities, social sciences, and interdisciplinary domains was established and placed under the President's management to review HU's educational and research units in these domains in response to the announcement made by the Minister for Education, Culture, Sports, Science and Technology in June (regarding a review of the national universities' organization and operation) and the redefinition of the University's mission. The working group conducted field surveys at two universities that were leaders in the domains concerned and drew up a proposal for forming educational/research units that would lead to HU's functional reinforcement in humanities, social sciences, and interdisciplinary domains and reported it to the President.

In November, to promote HU's reform from medium- and long-term perspectives, the Future Strategic Planning Committee was established mainly with young members, as an advisory organization for the President.

To enable the President to demonstrate more effective leadership in promoting HU's reform toward functional reinforcement, A-KPI data reclassification by faculty members was conducted based on IR function analysis to be used as reference for decision making by executive units and other purposes. At the same time, a new feature was added to the intra-university portal, "IROHA," to enable the faculty members to check their own A-KPI, thereby spreading the use of the indicators more widely among the faculty.

To visualize the full spectrum of activities by the faculty members, HU adopted new achievement indicators to measure the faculty members' efforts for executing their tasks using university-wide common criteria: Basic Effort Key Performance Indicators (B-KPI).

Development of a research environment conducive to innovation

[AY 2013-2014]

HU established within its organization a system for forming world-class research bases that promote interdisciplinary collaboration, fusion, and research, thereby continuously creating diverse research bases, ranging from dedicated basic research bases to those focused on the creation of innovations and developing them into the nuclei of HU's research capabilities. In Phase 1 (AY 2013), three stand-alone research bases and seven incubation research bases were selected, and in Phase 2 (AY 2014), one stand-alone research center and six incubation research centers were selected, to set in motion the system. Moreover, concentrated assistance was provided to the research bases as part of HU's strategic redistribution of resources, to encourage their continuous development and vigorous research activities as the world's leading research centers in the disciplinary group of human and social sciences and of natural science, engineering, agriculture, and medicine.

[AY 2015]

Strict interim evaluation was carried out at the Phase 1 (AY 2013) incubation research centers, to ensure the continuation of their vigorous research activities in the future. Furthermore, to increase international joint research projects mainly at selected research centers, HU actively applied for domestic and international governmental funds intended for international joint research center development projects (one application accepted), and signed comprehensive agreements with overseas universities in preparation for implementation following proposal adoption.

Personnel and remuneration system reform

[AY 2013-2014]

As a measure to attract and retain excellent human resources, the adoption of an annual salary system reflecting individuals' background and performance was promoted in accordance with HU's annual salary system introduction plan, to be applied not only to academic faculty members already employed but also newly hired young academic faculty members, instructors of non-Japanese nationalities, and URAs.

[AY 2015]

To realize the optimal appointment of academic faculty members and further reinforce HU's educational and research capabilities, HU decided to adopt in AY 2016 a university-wide centralized personnel cost management system for the academic faculty, switching from an educational/research unit-based system. HU also decided to conduct strategic personnel appointments from a university-wide perspective in accordance with decisions to be made by the Personnel Committee placed directly under the President.

As part of HU's drive to make the personnel and remuneration system more flexible, HU introduced a cross-appointment system and applied it to two academic faculty members. With regard to the annual salary system, following the review of the Hiroshima University Basic Principles of the Individual Faculty Evaluation System, HU put in place a system for filing complaints about evaluation results, while proceeding with a partial introduction of the annual

salary system to applicable instructors. As a result, the number of academic faculty members to whom the system was applied increased from 36 (of which 6 were foreign nationals) at the end of AY 2014 to 117 (of which 28 were foreign nationals) at the end of AY 2015.

- **Proactive reform measures to clarify the university's characteristics and societal roles through the "redefinition of the mission"**

- **<Three spearheading domains>**

- **(Teacher training)**

- [AY 2013-2014]

HU continued preparatory work for application for governmental approval for the establishment of a teacher training graduate school in AY 2016, while continuing the examination of curricular contents and other educational matters in collaboration with the local boards of education.

- [AY 2015]

Following the obtainment of governmental approval, HU pursued preparatory work for the establishment of a teacher training graduate school in AY 2016.

- **(Medicine)**

- [AY 2013-2014]

- As part of the activities of the Hiroshima International Council for Health Care of the Radiation-exposed (HICARE), which HU operates in collaboration with Hiroshima Prefecture and Hiroshima City, HU conducted training for participants from abroad, thereby engaging in multifaceted human resource development. HU's project for the "Development of a Smart Treatment Chamber for the Improvement of Both Medical Safety and Efficiency" (total budget: approximately 200 million yen for five years) was selected as one of the "Research and Development of Advanced Medical Devices and Systems to Achieve the Future of Medicine" projects of the New Energy and Industrial Technology Development Organization (NEDO) for AY 2014. In February 2015, Hiroshima University Hospital's clinical research department was reorganized as the Center for Integrated Medical Research so as to improve its clinical research system, thus upgrading the standards of medical practice and encouraging original innovations at HU, as well as to assist and better manage the execution of clinical trials.

- [AY 2015]

- The Faculties of Medicine, Dentistry, and Pharmaceutical Sciences jointly organized an early trial practical training program to draw up concrete IPE (interprofessional education) programs to be launched in the next academic year. About 20 undergraduate students participated in overseas practical training programs in medical research and clinical practice, while HU increased the number of its overseas partner educational institutions. Highly advanced research was promoted at the Hiroshima Liver Research Project Center in Hiroshima, the Center for Regenerative Medicine as an Immediate Measure for Radiation Emergency, and the Cartilage Regeneration Project Center, while at the same time clinical studies and the development of new diagnostic techniques and a cell bank for regenerative medicine were pursued toward the ultimate goal of realizing clinical applications. At HU's MEXT-selected COI Stream "Center of KANSEI Innovation," research into the cerebral mechanisms for sensory cognition was pursued to establish technologies for the visualization of senses and emotions and promote the development of applicable systems in various fields.

(Engineering)
[AY 2013-2014]

In AY 2013, within the framework of the Overseas Internship Program (“Global Explorers to Cross Borders” or “G.ECBO”) and joint overseas research projects, HU sent about 20 students abroad, using external funds from such organizations as the Japan Student Services Organization (JASSO), exchanging about 15 fourth-year undergraduate students with National Central University, Taiwan. HU further pursued the development of a double-degree system, newly signing an agreement with the doctoral program at Surabaya Institute of Technology, Indonesia, and producing tangible results from international exchange through the continued participation in Hiroshima Prefecture’s global manufacturing human resource development project.

Within the framework of the “Program for Advancing Strategic International Networks to Accelerate the Circulation of Talented Researchers” of the Japan Society for the Promotion of Science (JSPS), HU sent four doctoral students majoring in biotechnology to Harvard University in the United States and Kaohsiung Chang Gung Memorial Hospital, Taiwan, leading to tangible results in global human resource development.

HU organized a specialized practical seminar on semiconductors, receiving 16 attendants from businesses from all over Japan. HU also organized an LSI manufacturing application seminar in the Super Clean Room of the Research Institute for Nanodevice and Bio Systems, contributing to local industrial vitalization.

HU researchers published a total of 75 papers in specialized international journals (of which 9 were in journals with IF>5.0) in the field of biotechnology, communicating high-level research results on a global scale. HU vigorously promoted advanced research in semiconductor- and nanotechnology-related fields in research projects commissioned by the Japan Science and Technology Agency (JST) and the Ministry of Internal Affairs and Communications, and in the MEXT Nanotechnology Platform Project. HU also promoted joint research with semiconductor and electric appliance manufacturers, thereby contributing to society through research achievements. In the field of new energy development, HU conducted research on ammonia as an energy storage and transportation medium in the “Advanced Low Carbon Technology Research and Development Program (ALCA)” within the framework of JST’s Strategic Basic Research Program, producing results beneficial for society.

[AY 2015]

HU researchers published a total of 80 papers in specialized international journals (of which 4 were in journals with IF>5.0) in the field of biotechnology, communicating high-level research results on a global scale. In the field of energy carrier development, HU developed an ammonia decomposition and high-purity hydrogen supply system for hydrogen stations and conducted research into ammonia absorbents as a SIP Cross-ministerial Strategic Innovation Promotion Program of the Council for Science, Technology and Innovation of the Cabinet Office, producing results beneficial for society.

HU organized a specialized practical seminar on semiconductors, receiving 7 attendants from businesses from all over Japan. HU also organized an LSI manufacturing application seminar in the Super Clean Room of the Research Institute for Nanodevice and Bio Systems, contributing to local industrial vitalization.

HU actively carried out 20 international joint research projects expected to assist the local industrial community in enhancing their responsiveness to globalization.

In April 2015, HU organized a joint research seminar on next-generation automobile technology. In July 2015, HU opened a new joint research seminar on Kobelco Construction Machinery next-generation advanced technology.

<The other domains>
(Humanities)
[AY 2013-2014]

By organizing lectures and seminars on Japanese literature and history, HU furthered interaction with the Japan- and Japanese language-related faculties and departments of universities abroad, including the University of Indonesia, Indonesia University of Education; Ho Chi Minh City National University of Social Sciences and Humanities; the Law School and the School of Philosophy, Literature and Human Sciences, the University of Sao Paulo; and the Department of Japanese at National Taiwan University. As a result, an instructor in Japanese literature in the Faculty of Humanities at the University of Indonesia enrolled in a doctoral course at HU.

[AY 2015]

HU made further efforts for HU’s overseas expansion, mainly through collaboration with the divisions concerned in preparation for the establishment of systems relating to China’s National Construction High-level University Government-sponsored Graduate Student Project and the admission of mature international students in doctoral courses, as well as the establishment of the Japanese language and culture research program (HU-JS Program). HU offered a professor from Cairo University, Egypt, a working environment for his Arabic translation of a Japanese manga about the A-bombing of Hiroshima, *Hadashino Gen (Barefoot Gen)*, also as part of HU’s overseas development efforts.

(Social sciences)
[AY 2013-2014]

HU studied prospective curricula and organizational systems in preparation for the opening of a scheduled global teacher training program to train future school teachers capable of cultivating in pupils qualities and capabilities required in a globalized society, in view of the need for responses to the globalization of elementary and secondary education.

In the field of Economics, HU continued academic exchange meetings with its partner universities from FY 2009, in which graduate students presented their research results. In 2014, HU organized international joint seminars with the Faculty of Economics, Chulalongkorn University, Thailand; the College of Commerce, National Chengchi University, Taiwan; Singapore Management University; and the College of Humanities, Arts, and Social Sciences, Nanyang Technological University, Singapore, at these universities. HU also carried out academic surveys in these countries about international business management by Japanese corporations centering on Asia.

[AY 2015]

Following the obtainment of governmental approval for the establishment of a teacher training graduate school, HU pursued transversal curricular construction in preparation for graduate school reorganization in AY 2016.

In the field of Economics, HU continued academic exchange meetings with its partner universities, organizing international joint seminars with the College of Commerce, National Chengchi University, Taiwan, and Singapore Management University, at these universities, and conducting academic surveys on international business management by Japanese corporations centering on Asia. In April 2016, HU received a researcher from Nanyang Technological University, Singapore, as an instructor for two months, in preparation for joint international research.

In the domain of research into higher education, HU continued basic and interdisciplinary studies about university and higher education, results of which were presented in university journals, reports, researchers’ meetings, international symposia, and open study meetings. HU also continued international joint comparative research concerning university reform with researchers from the University of Melbourne.

(Interdisciplinary domains)
[AY 2013-2014]

In the domains that integrate human and natural sciences, three areas of undergraduate education, i.e., human, natural, and social sciences, were integrated in AY 2013 into a single educational program (integrated arts and sciences). At the graduate level, a 21st-century-type interdisciplinary science project group was established with the faculties and students specializing in human, social, and natural sciences. The students participating in this program were commended by the College Town Development Conference (Higashi Hiroshima City) and the Japanese Association of Hydrological Sciences for their research achievements. In response to the landslide that occurred in Hiroshima in August 2014, HU faculty members joined local governmental councils and other forums, undertaking activities and making proposals.

In addition to the existing Special Education Programs, namely the Special Education Program for Young Professionals Preparing for Careers in International Organizations, Global Environmental Leaders Special Education Program, IDEC/JICA Collaborative JOCV Zambia Education Program, and i-ECBO Special Education Program, HU started four educational programs in collaboration with other Japanese and overseas universities and research institutions and international organizations. HU offered assistance to students in the doctoral courses in undertaking overseas fieldwork, internships, and presentations at international academic conferences, thereby pursuing global human resource development.

[AY 2015]

HU introduced an e-portfolio system so as to establish a precise enrollment management and student guidance system. HU worked on the improvement of classes in cooperation with the Headquarters for Liberal Arts Education mainly through class visits and faculty development (FD) seminars (participants: 62) using actual examples of term-based courses. To lead a series of research projects on education at Higashi-Senda Innovative Research Center, HU launched the project “general risk science in globalized society,” organizing open seminars (four sessions, total number of attendants: approximately 120).

HU continued to carry out the Global Environmental Leaders Special Education Program (GELs Program), promoting interdisciplinary education and research in environment-related fields. HU organized a linkage (double-degree) program within the framework of Indonesia’s advanced human resource development project, offering master’s and doctoral programs to personnel engaged in policy planning in Indonesia’s central and regional governments (number of students accepted in AY 2015: 7). Furthermore, to promote the post-2015 Development Agenda, compiled in AY 2015, following the Millennium Development Goals, HU hosted an international symposium, inviting representatives of universities and education ministries of eight countries.

(Healthcare - Dentistry)
[AY 2013-2014]

The international students enrolled in the International Dental Course (three in each year since course inception, 12 in total) steadily pursued their respective curricula alongside their Japanese peers. The International Dental Course lectures and practical training sessions conducted both in English and Japanese were further improved through FD meetings held periodically about education in the International Dental Course and English language seminars for the faculty members.

[AY 2015]

As the fifth class of students in the International Dental Course, one student was accepted each from Indonesia, Vietnam, and Cambodia. FD meetings about education in the International Dental Course and seminars on English for the faculty members were also continued in this

academic year, to further improve the Course lectures and practical training sessions conducted both in English and Japanese. The first class of students in the International Dental Course took an examination necessary to obtain a bachelor’s degree at their home universities, and all three of them passed the exam.

HU organized the 6th Hiroshima Conference on Education and Science in Dentistry, in which 400 attendants (200 from outside Japan) participated from 58 universities and institutions in 18 countries. In concurrence with this international symposium on education and research, an international forum was held for students.

(Healthcare - Pharmaceutical Sciences)
[AY 2013-2014]

Each year, students take the lead in organizing a patient-oriented study camp for third-year students of the Faculty of Pharmaceutical Sciences, inviting as special guests seven to eight representatives of groups of patients suffering from harmful effects of pharmaceutical drugs. In AY 2014, 98% of the students who participated in the camp found it highly beneficial for their personal development. The contents of the camp were presented in Lecture I of the AY 2014 special lecture series on the adverse effects of drugs as part of the expert training/special course of the Pharmaceutical and Medical Device Regulatory Science Society of Japan (PMRJ), thereby disseminating information to not only other universities but also the general public, corporations, medical institutions, and other quarters of society.

[AY 2015]

On September 17 and 18, 2015, students took the lead in organizing a patient-oriented residential study camp for third-year students of the Faculty of Pharmaceutical Sciences, inviting as special guests seven representatives of groups of patients suffering from harmful effects of pharmaceutical drugs. In AY 2015, 98% of the students who participated in the camp (59 out of 60 students) found it highly beneficial for their personal development. The results of the camp were presented at the AY 2015 Shimane Prefectural Seminar for Senior High School Students, held in Matsue City in December 2015 and in Masuda City in January 2016, both in Shimane Prefecture, disseminating information to senior high school students and the general public at large

(Healthcare - Nursing and medical technology, Interdisciplinary and single-area specialization)
[AY 2013-2014]

Following the university-wide reorganization starting in AY 2014, lecturers (special appointment) of non-Japanese nationalities were hired to teach undergraduate and postgraduate courses in English. This improved undergraduate and postgraduate students’ spoken and written communication skills in English. The academic faculty members similarly benefitted from the presence of their English-speaking colleagues. At the same time, HU’s global activities were reinforced, mainly in collaborative programs with partner universities and study-abroad programs. These efforts produced positive results, including an increase in the number of papers by HU students and researchers presented at international academic conferences.

[AY 2015]

In AY 2015, international faculty members continued to teach in English, encouraging undergraduate and postgraduate students to further improve their English proficiency and reinforcing their responsiveness to globalization. HU pursued student and faculty exchange with natural science-related departments of Gyeongnam University, Korea. In regard to research, HU’s research proposal in the area of regenerative medicine making use of the microgravity environment in space received acceptance from NASA/CASIS (Center for the Advancement of Science in

Space) for the execution of research aboard the International Space Station US National Laboratory.

(Science)

[AY 2013-2014]

HU's research centers pursued their respective characteristic research in their respective areas of specialization. For example, the joint research project at three bases in Japan, the United States, and Europe using data from the Fermi Gamma-ray Space Telescope (FGST) was continued; research results produced by the Research Center for the Mathematics on Chromatin Live Dynamics were actively disseminated; the technology of genome editing with artificial nucleases was actively provided to researchers participating in joint research projects in and outside Japan; and assistance was provided to a variety of cell engineering research projects using genome editing technology.

HU carried out joint research projects and experiments, actively receiving researchers from abroad, as listed below:

Beam Physics Laboratory of the Graduate School of Advanced Sciences of Matter developed a new experiment system, leading to stronger cooperative ties with other research units. Some of the laboratory's research results were published in Physical Review STAB.

A joint experiment was conducted about physical properties of a fixed field alternating gradient (FFAG) accelerator.

Joint research was conducted about strongly correlated magnetic matter, and two resultant co-authored papers were published in Physical Review B. SCI papers and other papers were published in books and scientific journals in various branches. In the domain of condensed matter physics, one paper was published in *Reviews of Modern Physics*, a top-ranking journal, with one paper ranking among the top 1% of the most cited papers, while 39 SCI papers were published.

As of the end of AY 2014, the Hiroshima Synchrotron Radiation Center's joint research network consisted of 56 Japanese research institutions and 33 overseas institutions (cumulative numbers since AY 2004). In AY 2013 and AY 2014, the Center conducted joint research with 99 Japanese and 96 overseas research institutions. The total numbers of the Center's external researchers were 100 and 103 in AY 2013 and AY 2014, respectively, of which non-Japanese researchers were 47 and 48, respectively. The Center's globalization thus advanced further, with non-Japanese researchers accounting for 47% of total external researchers.

[AY 2015]

Characteristic research was continued in the respective areas of specialization centering on project research centers and at incubation and stand-alone research centers in HU's support programs.

A new summer program was organized in advanced integrated sciences to promote the globalization of education and develop globally operational human resources. Joint research was conducted about strongly correlated magnetic matter, and papers co-authored by HU students were published in Physical Review B.

The Hiroshima Synchrotron Radiation Center was rated "A" for its numerous excellent achievements resulting from the advanced research that the Center had promoted as a joint usage/research base with focus on research in condensed matter physics using synchrotron radiation mainly from the ultraviolet to vacuum ultraviolet range, while clearly distinguishing the Center's role from that of other radiation research facilities; for the Center's early launch of international joint research, producing numerous papers published in high-IF journals, including

those co-authored by domestic and international joint researchers; and for the Center's great contribution to the local communities through the frequent organization of open seminars and other events.

(Agriculture)

[AY 2013-2014]

HU newly signed an international exchange agreement with four universities to promote education and research in the three areas of botany and zoology, fishery and marine science, and food science, accepting more international students and further activating research exchange. At the same time, HU sent students to its partner universities abroad. Furthermore, HU organized an international summer school, an international symposium on food and environmental issues, and other events, vigorously working on the reinforcement of its research capabilities and international exchange.

[AY 2015]

HU invited instructors from abroad on a short-term basis and newly signed an inter-departmental international exchange agreement (with the Faculty of Marine Science and Fishery, Hasanuddin University; the Faculty of Agriculture, Life and Environmental Sciences, University of Alberta; the Faculty of Agriculture and four other faculties, Kasetsart University) to further activate education and research in the three areas of botany and zoology, fishery and marine science, and food science. Accordingly, HU pursued exchange programs with its partner universities, sending 16 students for overseas training, accepting and sending 12 students each in a special young researchers' course, and sending 8 students and accepting 11 students on the AIMS Program. Furthermore, HU vigorously pursued the reinforcement of research capabilities and international exchange, through the organization of an international summer school (14 participants from 12 universities), an international symposium on food and environmental issues (94 participants from 10 universities), the International Network of Universities (INU) Master's Summer School for Global Citizenship and Peace (34 participants from 7 universities), and international symposia at HU's incubation research bases. As a result, the enrollment rate of the doctoral courses at the time of admission reached 100% (as compared to 78.8% in AY 2014). The number of awards presented to HU's postgraduate students at academic society meetings, including those held outside Japan, increased to 18 from 11 in AY 2014.

Detailed Situations

- I. Operational management and finance
 (1) Operational improvement and efficiency enhancement goals
 <1> Organizational management improvement goals

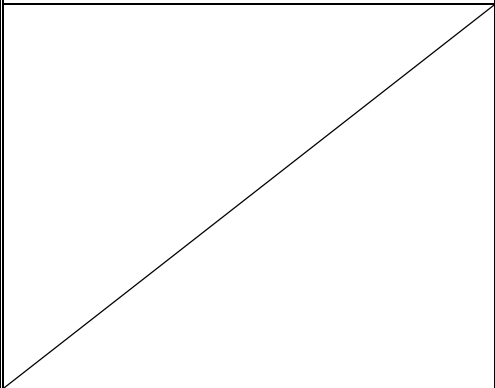
Mid-Term Goals	(1) Goals relating to the construction of flexible education and research systems Review of the education and research systems to better respond to increasingly sophisticated, complex, and globalized academic activities Construction of mechanisms for realizing effective education, research, and human resource development by combining existing educational and research resources through inter-university collaboration
	(2) Goals relating to the construction of flexible management and operational mechanisms Development of an environment that enables the students to fully dedicate themselves to their studies, and the faculty members to education, research, and healthcare activities Appropriate and efficient personnel cost management and strategic distribution of in-house resources from a university-wide perspective
	(3) Goals relating to the acquisition of excellent human resources Construction of a workplace environment that is rewarding for both academic and administrative faculty members Human resource development, including career path exploration, for administrative faculty members for further specialization
	(4) Goals relating to the promotion of gender equality Promotion of a better work-life balance for academic and administrative faculty members, active promotion of women to decision-making posts in university administration

Mid-Term Plan	AY 2015 Annual Plan	Progress status		Reasons for evaluation results (status of Plan implementation and other factors)	Weighted points	
		Mid-Term	Annual		Mid-Term	Annual
[12] [Measures for achieving the goals relating to the construction of flexible education and research systems] Review of undergraduate and postgraduate education/research units and enrollment capacities in view of societal needs, enrollment rates, and other factors	[12] [Measures for achieving the goals relating to the construction of flexible education and research systems] Reorganization of the Graduate School of Education in AY 2016, examination of the introduction of a dedicated global teacher training program as a response to globalization	III	III	(Summary of the status of Plan implementation from AY 2010 to AY 2014) From AY 2010, the undergraduate and postgraduate education and research organizations and their maximum enrollment capacities were reviewed in consideration of societal requirements, enrollment rates, and other factors. For example, in AY 2012, the Graduate School of Medicine, Dentistry, and Pharmacology and the Graduate School of Public Health Science were reorganized into the Graduate School of Biomedical and Health Sciences, to further develop education, research, and clinical medicine and to train highly specialized healthcare professionals capable of leading advanced team-based medical care.		
				(Summary of the status of Plan implementation in AY 2015) [12] In August 2015, the <u>reorganization of the Graduate School of Education scheduled for AY 2016</u> was approved by MEXT. With regard to the introduction of a <u>global teacher training program</u> , prospective partner universities were examined to determine whether they would be able to accept HU students, organize sessions of practice teaching there, and sign an inter-departmental agreement for joint- or double-degree programs. As a result, it was decided to <u>commence the program in AY 2016</u> .		
[12] Optimization of maximum enrollment in the Department of Dentistry, Faculty of Dentistry		III		(Summary of the status of Plan implementation from AY 2010 to AY 2014) Maximum enrollment in the Department of Dentistry, Faculty of Dentistry, was reviewed in consideration of societal requirements and other factors. AY 2011 <u>Maximum enrollment decreased</u> (55 → 53 students) <u>Mid-year/mid-program enrollment discontinued</u> (mid-program enrollment in the second year discontinued: 5 → 0 students)		

	[12] (Completed in AY 2011; no corresponding action in AY 2015)	-	(Summary of the status of Plan implementation in AY 2015) [12]		
[12] Construction of flexible and optimal education and research mechanisms in view of the university-wide reorganization of the education and research units, and investigation in preparation for the development of education and research units that take advantage of HU's characteristics and proven educational and research resources in life- and bio-related disciplines		III	(Summary of the status of Plan implementation from AY 2010 to AY 2014) (Plan newly added in AY 2015; no corresponding action from AY 2010 to AY 2014)		
	[12] Investigation in preparation for the development of education and research units that take advantage of HU's characteristic and proven educational and research resources in life- and bio-related disciplines		III	(Summary of the status of Plan implementation in AY 2015) [12] A working group for the reinforcement of life- and bio-related disciplines was established and placed under the President's management. The working group conducted field surveys at two overseas universities and nine Japanese universities and <u>drew up a proposal for forming education and research units that would lead to HU's functional reinforcement of life- and bio-related disciplines.</u>	
[12] Establishment of joint or collaborative postgraduate programs in response to interdisciplinary trends and fusion in education and research and to local needs for human resource development		III	(Summary of the status of Plan implementation from AY 2010 to AY 2014) In AY 2010, HU commenced an educational program within the framework of the <u>Information and Biomedicine Engineering Program, a collaborative project among HU, Hiroshima City University, and Hiroshima Institute of Technology.</u> In AY 2013, <u>Hiroshima International University joined the group, and HU commenced another educational program within the framework of the "Clinical, Information and Biomedicine Engineering Project,"</u> an extension of the former program developed by the four educational institutions. Based on the results of the AY 2013 verification by the committee in charge of evaluating the four universities' collaborative program, HU decided to establish postgraduate programs in collaboration with private businesses and held deliberations on course subjects and other details with Mazda Motor Corporation, with which HU (Graduate School of Biomedical and Health Sciences) had signed an agreement for cooperation in education and research for the scheduled opening of a program in the second semester of AY 2015.		
	[12] Establishment of collaborative postgraduate programs		III	(Summary of the status of Plan implementation in AY 2015) [12] As a graduate school promoting university-business collaboration, HU's Graduate School of Biomedical and Health Sciences created a <u>joint research program jointly with the Mazda Motor Corp. Technical Center, under the theme of "Special Lecture in Biomedical Engineering and Innovation,"</u> in the second semester of AY 2015, to pursue university-business collaboration in the field of biomedical engineering. A questionnaire survey conducted with the students who took the course indicated that it was effective in deepening their understanding of the importance of interdisciplinary fusion and problem-solving processes.	
[13] [Measures for achieving the goals relating to the construction of flexible management and operational mechanisms] Reinforcement of the support system for education/research units		III	(Summary of the status of Plan implementation from AY2010 to AY 2014) Based on its review of the university-wide management support system, <u>in February 2014 HU adopted a plan to reorganize it into four units, Executive Board (Headquarters), Higashi-Hiroshima Campus Management Support Office, Kasumi Campus Management Support Office, and Hospital Management Support Office. Following approval by the Executive Board, the plan was implemented in June 2014. At the same time, the Common Administrative Services Office was established within the Higashi-Hiroshima Campus Management Support Office, to which duties relating to financial and general affairs were assigned, so as to reorganize the Financial and General Affairs Office, centralize identical and similar duties concerning the units, and realize standardization and efficiency improvement.</u>		

	<p>[13] [Measures for achieving the goals relating to the construction of flexible management and operational mechanisms] Enhancement of the faculty's specializations and review of the unit management support system in accordance with the organization of the education/research units, to reinforce the unit management mechanism</p>		<p>(Summary of the status of Plan implementation in AY 2015) [13] To reinforce the unit management mechanism, seminars and training programs were organized to upgrade the faculty's specializations, such as training for student-supporting academic and administrative faculty members, seminars on accounting standards, and basic training for faculty members in charge of personnel affairs. In June 2014, the Common Administrative Services Office was established, to which identical and similar duties were transferred from the respective units. Further review was continued to realize standardization and efficiency improvement, and personnel reshuffling was conducted to optimize their placements.</p>		
<p>[13] Change in the management of personnel expenses for academic faculty members in the respective units from one based on the number of persons to one based on monetary amount</p>	<p>[13] (Completed in AY 2011, no corresponding action in AY 2015)</p>	III	<p>(Summary of the status of Plan implementation from AY 2010 to AY 2014) In compliance with the "Basic Policy for Academic Faculty Appointments in and after AY 2010," <u>the distribution of academic faculty members in the respective units was changed in AY 2010 from a mode based on the number of persons to a mode based on monetary amount (with points attributed to average personnel expenses for each job title) while ensuring an annual 2% reduction, of which 1% was recognized as personnel expense reduction and the other 1% was set aside for university-wide adjustment and strategically reinvested for new educational units and support for female academic faculty member recruitment.</u></p> <p>(Summary of the status of Plan implementation in AY 2015) [13] -</p>		
<p>[13] Review of the distribution of university funds, including an increase in the amount of the President's discretionary account</p>	<p>[13] (Completed in AY 2012, no corresponding action in AY 2015)</p>	III	<p>(Summary of the status of Plan implementation from AY 2010 to AY 2014) To conduct education and research activities in accordance with the Second Mid-Term Plan throughout its period, the unit prices of the items for the calculation of basic expenses (for education and research) were not reduced, despite a severe financial situation. In consideration of the mid-term financial situation during the period of the Second Mid-Term Plan, with projects scheduled to continue over several years, the President's discretionary account and common expense items (expenses for repairs and education and research facilities), for which funds had been dispensed from separate budgetary frameworks, were regrouped in AY 2011 as "special project expenses" for integrated management to enable more flexible and mobile use of funds for projects anticipated during the Second Mid-Term Plan period, such as projects under the President's leadership and university-wide education and research environmental development projects.</p> <p>(Summary of the status of Plan implementation in AY 2015) [13] -</p>		
<p>[14] [Measures for achieving the goals relating to the acquisition of excellent human resources] Human resource evaluation in terms of educational, research, and healthcare activities, social contribution, and university administration, and improvement and reinforcement of human resource treatment based on evaluation results</p>	<p>[14] [Measures for achieving the goals relating to the acquisition of excellent human resources] (Completed in AY 2012, no corresponding action in AY 2015)</p>	III	<p>(Summary of the status of Plan implementation from AY 2010 to AY 2014) In view of the securing of funds expected to result from the readjustment of indirect expense allotment rates, criteria were set up for the allotment of cash bonuses and research funds. Accordingly, <u>incentive bonuses were provided to those who had obtained external funds at the end of AY 2011 (126 persons, 17.35 million yen in total) and AY 2012 (130 persons, 18.5 million yen in total),</u> thereby improving and reinforcing human resource treatment based on achievements.</p> <p>(Summary of the status of Plan implementation in AY 2015) [14] -</p>		

<p>[14] Introduction of more flexible personnel and remuneration systems to secure diverse human resources; in particular, the introduction of a performance-based annual salary system according to a specific plan, on the premise that an appropriate performance evaluation system will be established, for the academic faculty members included in the calculation of subsidies for administrative expenses relating to retirement allowances</p>	<p>[14] Adoption of more flexible personnel and remuneration systems, establishment of an appropriate performance evaluation system, and introduction of a performance-based annual salary system according to a specific plan</p>	<p>III III</p>	<p>(Summary of the status of Plan implementation from AY 2010 to AY 2014) (Plan newly added in AY 2015, no corresponding action from AY 2010 to AY 2014)</p> <p>(Summary of the status of Plan implementation in AY 2015) [14] As part of HU's drive to make the personnel and remuneration systems more flexible, HU introduced a <u>cross-appointment system</u> and applied it to two academic faculty members. In preparation for the full-fledged implementation of appropriate performance evaluation and remuneration</p>
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	<p>[14] Improvement and enrichment of career paths envisaged in the new basic policy for human resource training as deemed necessary</p>		<p>(Summary of the status of Plan implementation in AY 2015) [14] To upgrade the operational ability of the administrative faculty in accordance with the human resource training plan for the administrative faculty, HU produced the <u>“List of Operational Knowledge and Skills,” a table listing the duties of, and knowledge and skills required in, the respective administrative units, to be used for on-the-job training, transfer of duties at the time of personnel reshuffling, the setting of individual goals, and so forth.</u> HU also produced a career path diagram, indicating, among other things, <u>personnel reshuffle cycles and criteria for promotion.</u> To motivate and raise the operational consciousness of young administrative faculty members, HU introduced a system for accelerating promotion to the section head grade using the performance evaluation results of the last three terms and a self-recommendation system within the framework of the qualifying examination for the group leader grade.</p>		
<p>[15] [Measures for achieving the goals relating to the promotion of gender equality] Establishment and improvement of diverse systems to enable personnel to achieve a better work-life balance, and creation of an environment facilitating the use of these systems</p>		III	<p>(Summary of the status of Plan implementation from AY2010 to AY 2014) In AY 2010, HU was recognized as a “certified 2010 employer” in compliance with the Act on Advancement of Measures to Support Raising Next-Generation Children, and as the first university in the Chugoku area to do so. Since then, to develop and improve various systems that enable employees to reconcile their work with family life and create an environment that facilitates the use of such systems, HU has adopted a Phase II Action Plan (April 1, 2010-September 30, 2014), devising various measures, such as a <u>day care service for school-age children during elementary school holidays, an on-campus day nursery for infants and children currently on nursery school waiting lists, assistance for the use of children’s convalescence facilities, seminars for both male and female employees, and a review of the upper limits of the total hours of partial childcare leave and conditions for the acquisition of credits</u> based on interviews with personnel. As a result, HU achieved all of the goals stipulated in the Action Plan and was <u>recognized as a “certified 2014 employer” in AY 2014.</u></p>		
	<p>[15] Continued establishment and improvement of diverse systems to enable personnel to achieve a better work-life balance, and creation of an environment facilitating the use of these systems based on system use survey results</p>	III	<p>(Summary of the status of Plan implementation in AY 2015) [15] To examine the environment in which HU’s work-life balance support systems were used and detect problems with the use of these systems, HU carried out a questionnaire survey and interviews with the administrative faculty members who had taken childcare leave and their supervisors. Based on the findings thus obtained, to adopt more flexible modes of working, HU <u>examined the possibility of expanding the range of employees entitled to irregular working hours within a period of one month and extending reporting hours within the flextime system: HU decided to introduce these changes in AY 2016. To provide administrative faculty members on childcare leave with training opportunities,</u> HU began disseminating information on skill development training (e-learning library, etc.) available outside regular working hours.</p>		

[15]
Increase in the percentages of female academic faculty members to about 14% and women in managerial posts

IV

			<p>suggestions known at university-wide councils attended by Deans/Directors and other leaders. These continued activities resulted in an increase in the <u>percentage of women in managerial posts from 7.6% (8 women) in AY 2010 to 10.3% (12 women) in AY 2014.</u></p>		
	<p>[15] Increase in the percentage of female academic faculty members higher than that in the previous AY and the percentage of women in managerial posts higher than that in the previous AY in accordance with the action goals, action plan, and action items for gender equality</p>	<p>III</p>	<p>(Summary of the status of Plan implementation in AY 2015) [15] The continued implementation of positive action in the recruitment of academic faculty members, the recruitment of excellent female academic faculty members using personnel expense points attributed as a result of university-wide readjustment, open calls exclusively for female academic faculty members as part of the “Building of Consortia for the Development of Human Resources in Science and Technology” project, and other actions resulted in the <u>percentage of women in the academic faculty being 16.0% as of March 1, 2016</u>, above the previous academic year’s figure. <u>As for women in managerial posts, the same percentage as in the previous academic year (10.3%) was maintained.</u> The continuation of measures for promoting women to decision-making posts increased the percentage of women members in the university-wide councils to 21.3% (2.4 points up from the previous academic year), further promoting gender equality in decision making in university administration.</p>		
			<p>Weighted points – subtotal</p> <hr style="border-top: 1px dashed black;"/> <p>Weighted points – grand total</p>		

(1) Special Remarks about Operational Improvement and Efficiency Enhancement

1. Special Remarks

Reinforcement of governance

[AY 2010-2014 and AY 2015]

HU implemented measures to enable the President to demonstrate more effective leadership in promoting HU's reform toward functional reinforcement, including the strategic and effective redistribution of university funds mainly through change in the appointments of academic and administrative faculty members to the respective education/research units, the President's discretionary account, the acquisition of excellent human resources through performance-based improvement of personnel treatment, and the active use of external experts in university administration, as in the participation of non-Japanese individuals as external councilors of the Administrative Council. Moreover, HU adopted its original goal-oriented indices for significant achievements, Achievement-motivated Key Performance Indicators (A-KPT), developed based on IR functional analysis data, to clarify the path to achieving the goal of making HU among the world's best 100 universities in 10 years. A-KPR are also used as a reference for decision making by executive units and other purposes.

Active use of external experts in university administration

[AY 2010-2014]

The Administrative Council held five meetings each year during the period. Each meeting was followed by an exchange of opinions on pre-selected themes to obtain external councilors' views contributory to the improvement of the University Corporation's management. The meetings were open to all HU stakeholders (including students) for active information sharing.

The proceedings of each Administrative Council meeting are published on HU's official website, which the general public can access. The meeting documents are viewable on the intra-university portal "IROHA."

[AY 2015]

New non-Japanese members were added as external councilors of the Administrative Council to realize management improvement providing a broader perspective.

To positively reinforce the respective education/research units' characteristics and strengths for further improvement and enable them to overcome their challenges, the external councilors of the Administrative Council evaluated the units in terms of management and finance. In the process of evaluation, the external councilors interviewed Deans/Directors of the units and compiled improvement targets based on the findings. They also had an exchange of opinions with students to ensure unit and university management from a student perspective as well, putting together the findings as requests to HU. The education/research units were informed of these improvement targets and requests and requested to take action accordingly. The President interviewed Deans/Directors of the units to confirm the status of actions and reported it to the external councilors.

Personnel expense management

[AY 2010-2014]

For appropriate and efficient personnel expense management and strategic personnel placement from a university-wide perspective in compliance with the "Basic Policy for Academic Faculty Appointments in and after AY 2010," the mode of appointments was switched from one based on the number of persons to one based on monetary amount (with points attributed to average personnel expenses for each job title). During the period, a 2% cost reduction was realized each year, of which 1% was recognized as personnel expense reduction and the other 1% was set aside for university-wide adjustment and strategically reinvested for new educational units, support for the recruitment of female academic faculty members, support for the recruitment of non-Japanese academic faculty members from AY 2014, and support for young researchers from AY 2015.

As for the administrative faculty members, the mode of appointments was also switched in AY 2013 from one based on the number of persons to one based on monetary amount, ensuring a 1.5% cost reduction each year, of which 1% was recognized as personnel expense reduction and 0.5% was set aside for university-wide adjustment and strategically reinvested for constitutional reinforcement mainly through governance, public relations, support for research, and promotion of globalization. (Plan No. [13][2])

[AY 2015]

To further reinforce its educational and research functions, HU decided to transfer, starting from AY 2016, the management of personnel expenses concerning academic faculty members from the units to which they belong to a single centralized management unit, and to entrust the Personnel Council placed under the President to conduct strategic placement of instructors from a university-wide perspective. (Plan No. [13][2])

Acquisition of excellent human resources

[AY 2010-2014]

The introduction of HU's original recruitment test, the employment of URAs to whom a performance-based annual salary system is applied, and other measures enabled HU to acquire diverse, excellent and highly qualified human resources, including those with excellent foreign language proficiency, non-Japanese nationals, and doctorate holders.

To encourage and reward those who obtain external funds, criteria were set up in AY 2011 for the allotment of cash bonuses and research funds. Accordingly, incentive bonuses were provided at the end of AY 2011 and AY 2012, thereby improving and reinforcing human resource treatment based on achievements. (Plan No. [14][1])

[AY 2015]

As part of HU's drive to make the personnel and remuneration systems more flexible, HU introduced a cross-appointment system and applied it to two academic faculty members. In preparation for the full-fledged implementation of the performance-based annual salary system, following a review of the Hiroshima University Basic Policy on the Individual Evaluation of the Academic Faculty, HU put in place a system for filing complaints about evaluation results, while proceeding with the partial introduction of an annual salary system to applicable instructors, namely 36 (of which 6 were foreign nationals) at the end of AY 2014, which increased to 115 (of which 28 were foreign nationals) at the end of AY 2015. (Plan No. [14][2])

Promotion of gender equality

[AY 2010-2014]

In AY 2010, HU was recognized as a “certified 2010 employer” in compliance with the Act on Advancement of Measures to Support Raising Next-Generation Children, as the first university in the Chugoku area to do so. Since then, HU has adopted the Phase II Action Plan (April 1, 2010-September 30, 2014), devising various measures, such as a day care service for school-age children during elementary school holidays, an on-campus day nursery for infants and children currently on nursery school waiting lists, assistance for the use of children’s convalescence facilities, and a review of the upper limits of the total hours of partial childcare leave and conditions for the acquisition of credits based on interviews with personnel. As a result, HU achieved all of the goals stipulated in the Action Plan and was recognized as a “certified 2014 employer” in AY 2014.

Mainly through HU’s adoption of a positive action policy with regard to open calls for applicants for academic posts and recruitment of women by making use of the personnel expense points attributed as a result of university-wide readjustment (support for the recruitment of female academic faculty members), as of March 1, 2015, the percentage of female academic faculty members at HU was 15.5%, above the numerical target set in the Mid-Term Plan.

As for women in managerial posts, HU continued taking action to increase their number, such as the proposal “About the introduction of a system that reflects the opinions of both genders in decision making” prepared in AY 2010, the participation by women in the Education and Research Council and other university administrative bodies, and an increase in the number of women managers among the clerical personnel. As a result, the percentage of women in managerial posts increased from 7.6% (AY 2010) to 10.3% (AY 2014). (Plan No. [15])

[AY 2015]

Thanks to the continuation of the positive action policy with regard to open calls for applicants for academic posts and recruitment of women by making use of the personnel expense points attributed as a result of university-wide readjustment (support for the recruitment of female academic faculty members), the percentage of female academic faculty members at HU was 16.0% as of March 1, 2016, above the numerical target set in the Mid-Term Plan.

To provide administrative faculty members on childcare leave with training opportunities, HU began disseminating information on skill development training (e-learning library, etc.) available outside regular working hours to interested personnel. (Plan No. [15])

2. Status of activities from a perspective common to the Mid-Term and Annual Plans

Are strategic and efficient redistribution of funds and management efficiency assured?

[Placement of academic faculty members]

In compliance with the “Basic Policy for Academic Faculty Appointments in and after AY 2010,” adopted since AY 2013 (approved by the Executive Board on October 30, 2012), the mode of appointment of academic faculty members continued to be based on monetary amount (with points attributed to average personnel expenses for each job title). During the period, a 2% cost reduction was realized each year, of which 1% was recognized as personnel expense reduction and the other 1% was set aside for university-wide adjustment and strategically reinvested for new educational units, support for the recruitment of female academic faculty members, support for the recruitment of non-Japanese academic faculty members from AY 2014, and support for young researchers from AY 2015. Moreover, to further reinforce its educational and research functions, HU decided to transfer, starting from AY 2016, the management of personnel expenses concerning academic faculty members from the units to which they belong to a single centralized management unit and entrust the Personnel Council placed under the President, thereby ensuring strategic placement of instructors from a university-wide perspective.

[Placement of administrative faculty members]

As for administrative faculty members, to realize optimal and efficient personnel expense management and their strategic placement from a university-wide perspective, the mode of appointments was also switched in AY 2013 from one based on the number of persons to one based on monetary amount. A 1.5% reduction in personnel expenses was thus realized each year, of which 1% was recognized as personnel expense reduction and 0.5% was set aside for university-wide adjustment and strategically reinvested for constitutional reinforcement mainly through governance, public relations, support for research, and promotion of globalization.

[The President’s discretionary budgetary framework]

Within the President’s discretionary budgetary framework, HU established the “President’s discretionary account” in AY 2010 and the special project expense account in AY 2011. Funds for strategic use in these accounts are secured through operational cost reduction, despite the fact that HU’s financial situation deteriorated mainly due to decreased governmental subsidies for university management. The special project expense account was set up in AY 2011 in view of the projects scheduled to continue over several years during the Second Mid-Term Plan. Created based on mid-term financial analysis, it regroups the President’s discretionary account and common expense items (expenses for repairs and education and research facilities) for which funds were formerly dispensed from separate budgetary frameworks. This new arrangement enables more flexible and mobile use of funds for priority projects, since the entirety of special project expenses is redefined as the President’s discretionary account from which funds may be allocated under the President’s leadership.

From AY 2013 to AY 2015, under the President’s leadership, funds were allocated to priority projects during the Second Mid-Term Plan target period: multiple-year campus development projects, such as the development of the Higashi Senda Innovative Research Center, activities for the acquisition of external funds, and continued support for projects benefitting from external funds.

[Operational efficiency>]

In AY 2013, HU examined the Hiroshima Campus (Kasumi and Higashi Senda) management support system in preparation for reform in AY 2014.

In AY 2014, HU reorganized its university-wide management support system into four units, Executive Board (Headquarters), Higashi-Hiroshima Campus Management Support Office, Kasumi Campus Management Support Office, and Hospital Management Support Office. Moreover, the Common Administrative Services Office was established within the Higashi-Hiroshima Campus Management Support Office, to which duties relating to financial and general affairs were transferred so as to reorganize the Financial and General Affairs Office, centralize identical and similar duties concerning the units, and realize standardization and efficiency improvement.

In AY 2015, a Vice Executive was appointed in December 2015, to be in charge of the Higashi Senda Innovative Research Center, to be established in April 2016.

Is the active use of external experts promoted?

From AY 2013 to AY 2015, the Administrative Council held 15 meetings to deliberate on important matters regarding HU’s management, such as the mid-term goals, the Mid-Term Plan, the Annual Plans, and budget and accounting.

The situations of responses to opinions on university management that were presented by the external councilors were classified by the year in which the actions concerned were considered completed, and this information was uploaded on HU’s website together with the proceedings of the meetings.

Is action taken to improve the auditing function?

HU established the Product and Service Contract Surveillance Committee, containing three external councilors, to ensure appropriate execution of contractual duties and establish a mutual check system concerning contractual duties. The committee held its first meeting in AY 2015.

[Responses to the problems detected in the AY 2014 evaluation]**Status of response to the problem of short enrollment (enrollment rate below 90%)**

(Law School, Program in Law)

To attract more applicants and entrance examination candidates, it is essential to improve the success rate of the School's students on the state bar examination. To this end, efforts are being made to improve the educational methods, including the introduction of a comprehensive educational program in AY 2014 focusing more on coaching-type instruction. As a result, the students' bar exam success rate in AY 2015 improved by about 5.4 points. The same efforts will be continued in the future.

To prevent successful entrance examination candidates from declining admission to the School, all possible measures have been put in place, including pre-admission guidance for successful candidates, the offer of correspondence courses for them in major subjects, and individual interviews with them immediately following the announcement of examination results to motivate them for admission. Moreover, to increase the number of entrance examination applicants, efforts are being made to make the examination procedure less burdensome, including a reconsideration of examination times, frequency, and venues, and other particulars. However, considering the great difficulty in ensuring enrollment anticipated in the future, the enrollment capacity for AY 2016 will be reduced by about 45% (from 36 to 20 students).

I. Operational management and finances
 (2) Financial improvement goals
 <1> Goals relating to an increase in external research funds, donations, and other sources of income

Mid-Term Goals	Enrichment and reinforcement of HU's financial foundation
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Mid-Term Plan	AY 2015 Annual Plan	Progress status		Reasons for evaluation results (status of Plan implementation and other factors)	Weighted points	
		Mid-Term	Annual		Mid-Term	Annual
[16] [Measures for achieving the goals relating to an increase in external research funds, donations, and other sources of income] Increase in the ratio of external funds, and expansion of the Hiroshima University Fund through fund collection strategies and deeper collaboration with the HU Alumni Association and other alumni organizations	III	III	(Summary of the status of Plan implementation from AY 2010 to AY 2014) In AY 2011, a comprehensive Strategy for the Acquisition of Competitive Funds was drawn up, which was reviewed in AY 2013. In AY 2014, the Strategy was revised based on review results, with the clarification of the support systems at different stages, i.e., upon application, acquisition, and program completion newly included. The implementation of measures in accordance with the Strategy resulted in the <u>adoption of HU's proposals in large projects, such as MEXT's Leading Graduate Doctoral Program, the Research University Promotion Project, the Super Global University Project (support for creation, Type A [top level]), and Building of Consortia for the Development of Human Resources in Science and Technology.</u> To steadily reinforce the Hiroshima University Fund, HU began appropriating for investment purposes the balance remaining in the Fund after the disposition of annual fixed expenses. To effectively use donations provided to HU for student support activities and other purposes, HU decided to integrate them into the Hiroshima University Fund. HU also launched a system that enables the academic and administrative faculty members to make a fixed monthly donation in units of 500 yen by automatic deduction from their salary. This system constantly collects some two million yen per year. HU worked in collaboration with the HU Alumni Association and other alumni organizations to request donations in manners suited for respective stakeholders, adopting fund collection strategies aiming for continuous donations in small sums. HU established the <u>Hiroshima University Fund Management Committee</u> to gather opinions on HU's finances from a broad range of individuals from within and outside HU. The Committee deliberated on and implemented various fund-raising measures, such as the use of credit cards for donations, donations through Japan Post Bank, donations of used books, and the inclusion of donation leaflets in Homecoming Day invitations. As a result, <u>after the establishment of the Hiroshima University Fund Management Committee in AY 2013, there was an annual increase of some 12 million yen in the total sum of donations each year during the period.</u> The Committee implemented fund-raising activities according to an annual action plan drawn up based on review and verification results.		III	III
			(Summary of the status of Plan implementation in AY 2015) [16] HU clarified the procedure for program proposal selection in accordance with the Strategy for the Acquisition of Competitive Funds and the support systems at the stages of application, fund acquisition, and program completion, to verify the application and adoption results to review the Strategy for the Acquisition of Competitive Funds in AY 2016. <u>The</u>			

	<p>necessary, review and modification of the fund collection strategies for respective stakeholders based on verification results and as deemed necessary</p>		<p><u>percentage of external funds increased from 6.2% in AY 2009 to 7.4% in AY 2015.</u> Two external councilors were added to the Hiroshima University Fund Management Committee to gather opinions from an even broader range of individuals. The verification of the fund collection strategies revealed what was necessary for HU to do: having donators make contributions in a continuous manner, strongly appealing to businesses in Hiroshima Prefecture for donations, and drawing up concrete plans for collaboration with alumni organizations. As a result, HU has devised the following measures: <u>Hiroshima University Sponsored Project Fund, for student support projects named after donators who commit to a continuous donation in units of 50,000 yen per month:</u> A brochure on the Sponsored Project Fund was produced, and copies were distributed at conferences on the HU Campuses and at events relating to HU. As a result, <u>25 donators promising a total of 32 units of donations applied (amounting to a continuous annual contribution of 19.2 million yen).</u> Vigorous fund-raising campaigns by Hiroshima University Fund Management Committee members, who visited corporations in Hiroshima Prefecture mainly through the intermediation of HU graduates: <u>The number of donations amounting to 500,000 yen or more each almost doubled from the previous academic year.</u> <u>Fund-raising campaigns in collaboration with the alumni organizations:</u> fund collection brochures were inserted in the members' newsletters of selected alumni organizations. Thanks to cooperation from the heads of these organizations, HU received <u>a total of over 32 million yen in donations.</u> It was decided that the Hiroshima University Fund Management Committee would meet every other month, instead of every three months or so as in the past, to activate information sharing and discussions on measures for further Fund expansion.</p>		
			Weighted points – subtotal		

I. Operational management and finance
 (2) Financial improvement goals
 <2> Goals relating to cost control

Mid-Term Goals

(1) Reduction of personnel expenses
 Reduction of personnel expenses concerning national government employees in the five-year period from AY 2006 in compliance with the Act on Promotion of Administrative Reform for Realization of Small and Efficient Government (Act No. 47 of 2006), and the continuation of reform concerning personnel expenses, following the national government employee reform, until AY 2011 based on the 2006 Basic Policy for Economic and Fiscal Management and Structural Reform (adopted by the Diet on July 7, 2006)

(2) Reduction of expenses other than personnel expenses
 Efficient execution through university-wide management cost control

Mid-Term Plan	AY 2015 Annual Plan	Progress status		Reasons for evaluation results (status of Plan implementation and other factors)	Weighted points	
		Mid-Term	Annual		Mid-Term	Annual
[17] [Reduction of personnel expenses] Reduction of personnel expenses concerning national government employees by at least 5% in the five-year period from AY 2006 in compliance with the Act on Promotion of Administrative Reform for Realization of Small and Efficient Government (Act No. 47 of 2006), and the continuation of reform concerning personnel expenses, following the national government employee reform, until AY 2011 based on the 2006 Basic Policy for Economic and Fiscal Management and Structural Reform (adopted by the Diet on July 7, 2006)	[17] [Reduction of personnel expenses] (Completed in AY 2011; no corresponding action in AY 2015)	III	-	(Summary of the status of Plan implementation from AY 2010 to AY 2014) As a result of the efforts to reduce the total personnel expenses according to the personnel expenses reform plan, <u>the personnel expenses during AY 2011 were down 11.6 percent from approximately 24,993 million yen for AY 2005 (the base year for personnel expense reduction) to approximately 22,086 million yen, far exceeding the reduction target of 5 percent specified in the Mid-Term Plan.</u>		
				(Summary of the status of Plan implementation in AY 2015) [17]		
[18] [Reduction of expenses other than personnel expenses] Analysis of the current financial situation with focus on management costs and setting of annual cost saving targets		III		(Summary of the status of Plan implementation from AY 2010 to AY 2014) <u>HU's management costs (excluding costs relating to the Hospital) upon the settlement of accounts in AY 2014 dropped from the AY 2009, the final year of the First Mid-Term Plan period, by about 570 million yen.</u> This is mainly because of management cost control in HU's budgeting (year-on-year decrease by 1.5% in and after AY 2010 and by 5.0% in and after AY 2013) and continuous cost-cutting efforts. They include a review of contractual conditions for power supply for the Attached Schools in four districts, which led to the adoption of a multiple-year contract, and for purchased goods, leading to modifications in product specifications. Cost reduction and clerical work rationalization were also achieved through university-wide common processing of clerical duties, including those for jointly subscribed insurance policies for the training ship "Toyoshiomaru." In AY 2010, a new budgetary scheme was introduced in which a budget for utilities costs was directly attributed to each of the education/research units so that the effects of their cost-cutting efforts would be directly perceptible and further motivate them to cut costs. The education/research units were allowed to spend the surplus		

	<p>[18] [Reduction of expenses other than personnel expenses] Efficient control of management costs (utilities, communications, facility maintenance and management, and other costs) in view of the reduction targets set in the annual budget each year, through a constant review of contractual conditions and the use of external service providers, and the construction of systems that serve as incentives for cost reductions greater than the cost reduction targets set in AY 2010</p>		<p>in the budget to improve their educational/research environment. Other utilities cost-cutting measures were also promoted, such as the adoption of LED lighting equipment and more energy-saving air conditioning systems.</p> <p>(Summary of the status of Plan implementation in AY 2015) [18] HU reviewed and modified some service contracts and operational methods, which led to cost reductions: <u>the direct employment of personnel for campus patrols, traffic control, and other daytime campus security duties</u> formerly indirectly commissioned, assigning them to a broader range of duties, including environmental maintenance (a saving of about 6 million yen per year); <u>review of the contractual unit price for the non-contagious waste disposal service (a saving of about 5.7 million yen per year); the unification of inter-campus shuttle services and library document transportation services</u> formerly under separate contracts (a saving of about 2.2 million yen per year); and the <u>replacement of an external service provider by HU's personnel for cleanup</u> of the on-campus residential facilities (a saving of about 600,000 yen per year).</p> <p>HU maintained a budgetary scheme in which the balance in the budget for utilities costs attributed to the education/research units (1.18 billion yen in total) was carried forward to the following year's budget.</p>		
		Weighted point – subtotal			

I. Operational management and finances
 (2) Financial improvement goals
 <3> Goals relating to improvement in asset utilization and management

Mid-Term Goals	Effective utilization of the assets (facilities and equipment) from a university-wide perspective
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Mid-Term Plan	AY 2015 Annual Plan	Progress status		Reasons for evaluation results (status of Plan implementation and other factors)	Weighted points	
		Mid-Term	Annual		Mid-Term	Annual
[19] [Measures for achieving the goals relating to improvement in asset utilization and management] Efficient and effective utilization of university facilities and equipment and the extension of their use to external parties	/	III		(Summary of the status of Plan implementation from AY 2010 to AY 2014) HU succeeded in increasing its revenues through efficient and better utilization of the assets (facilities and equipment) in its possession. Specifically, from the standpoint of <u>reviewing the use of the existing staff residential facilities and ensuring their efficient use</u> , HU adopted a basic policy for future planning concerning them, with reference to the Review Plan for the Staff Residential Facilities of the Independent Administrative Corporations drawn up by the Japanese government. The basic policy contains the principle of closing down 40-year-old or older residential facilities and not renovating or rebuilding them. Accordingly, <u>use of the Amazu Staff Residence was discontinued in March 2013, and its plot will be sold in open competitive bidding in or after AY 2016.</u> <u>With regard to land and building rental for the installation of automatic vending machines, bidding was carried out, with the contractual rental unit changed</u> from the surface area occupied by machines <u>to sales generated by machines</u> starting from AY 2013. As a result, <u>the rental revenue increased by 1.2 million yen as of AY 2014.</u> In AY 2013, HU <u>revised the unit prices of land and building rental to external parties</u> in consideration of the conditions surrounding the facilities near HU (building rent increased by about 2.3 times, land rent by about 1.5 times), leading to an <u>increase of 3 million yen in annual rent revenues as of AY 2014.</u> In March 2012, the use of the Marine Educational Station on Okimi Estate, which was in severe decay, was discontinued, and the plot was transferred for a consideration to the local government of Etajima City in June 2013.		
				(Summary of the status of Plan implementation in AY 2015) [19]	-	
				Weighted points – subtotal		
				Weighted points – grand total		

(2) Special Remarks about Financial Improvement

1. Special remarks

Activities for cost control

[AY 2015]

Budgetary attribution as an incentive

HU has maintained a budgetary scheme in which the balance in the budget for utilities costs attributed to the respective education/research units (1.18 billion yen in total) is carried forward to the following year's budget, and the units concerned are allowed to use it for constructive purposes. (Plan No. 18)

Goals relating to improvement in asset utilization and management

[AY 2010-2014]

Management of surplus assets

In the severe financial situation with the continuation of low interest rates, HU managed surplus funds with great care by accurately grasping the amounts of earnings and expenses on a daily basis. As a result, HU made a financial gain totaling 147,460,000 yen from AY 2010 to AY 2014, which was appropriated to the education and research facility budget.

[AY 2015]

Effective utilization of land and buildings

To offer a day care service to young children currently on nursery school waiting lists whose parents are HU employees or residents in the surrounding districts, HU signed a regular rental agreement for business purposes with a service provider to lease a portion of HU's premises to be used as a site for a licensed nursery school. This enables HU to continuously obtain an annual rental income of 7.5 million yen for the next 30 years.

As for land and building rental for the installation of automatic vending machines, the number of machines for bidding was increased by two in the current academic year, allowing HU to obtain about 22 million yen in rental income as of AY 2015 (with 69 machines). This sum was allocated to student support activities, including the support expenses for the Study Tour Abroad for Realization and Transformation (START) Program.

In accordance with HU's basic policy for the future planning of staff residential facilities, HU discontinued the use of the Miyuki Staff Residence in August 2015, and future use of the plot is currently under consideration. (Plan No. 19)

Management of surplus assets

In the severe financial situation with the continuation of low interest rates, HU managed surplus funds with great care by accurately grasping the expected amounts of earnings and expenses that tend to fluctuate so as to determine the operable amount on a daily basis throughout the year. As a result, HU made an annual financial gain of about 15 million yen each year from AY 2013 to AY 2015, which was appropriated to the education and research facility budget.

Solicitation of donations to the Hiroshima University Fund

[AY 2015]

As a new way to solicit donations and as part of HU's endeavor to become a comprehensive research university among the world's best 100, HU established the Hiroshima University Sponsored Project Fund to finance student support projects to train highly cultured individuals with a global outlook who work for peace, including scholarships for international students named after donors who commit to a continuous donation in units of 50,000 yen per month and support projects for Japanese students studying abroad.

HU produced a brochure on the Sponsored Project Fund and distributed copies at conferences held on the HU Campuses and at events relating to HU. As a result of vigorous fundraising campaigns led by the HU President, faculty members in managerial posts, and the members of the Hiroshima University Fund Management Committee, 25 donors committed to 32 units of donations, despite the Fund being in its inaugural year.

Accordingly, besides donations in conventional forms, in and after AY 2016, HU can expect a continuous annual contribution of 19.2 million yen (50,000 yen x 32 units x 12 months) to the Hiroshima University Sponsored Project Fund. (Plan No. 16)

2. Status of activities from a perspective common to the Mid-Term and Annual Plans

Are funds appropriately utilized? Are gains from their utilization used to improve education and research and support students?

From AY 2013 to AY 2015, interest rates remained low under the influence of the Bank of Japan's policy of quantitative and qualitative financial deregulation introduced in April 2013, and it was difficult to secure a positive return on investment using the assets. In such a situation, HU decided that it was essential to secure the maximum amount of funds available for investment mainly on short-term plans, taking action accordingly. Specifically, HU made sure to accurately grasp the expected amounts of earnings and expenses that tended to fluctuate so as to determine the operable amount on a daily basis throughout the year, adjusting the length of the investment period each time a transferable deposit was made so as to minimize the gap between the daily operable and operated sums. As a result, HU was able to handle an average of 11.5 billion yen per day for investment. Moreover, to disperse risks and increase profitability by taking advantage of scale merit, HU increased the annual sum of contribution to the joint investment plan of the national universities in the Chugoku area from 900 million yen to 1.3 billion yen. As a result, HU made an annual financial gain of about 15 million yen each year from AY 2013 to AY 2015. HU manages its funds appropriately in compliance with the provisions of Article 47 of the Act on General Rules for Independent Administrative Agency (application mutatis mutandis) and the Financial Accounting Bylaws based on Article 21 of the Hiroshima University Accounting Regulations. Financial gain from the investment of funds are appropriated in the special project expense account (education and research facility expenses), defined as a strategic account operable under the President's leadership and used to improve HU's education and research facilities.

Is financial information analyzed? Are analysis results used to improve university management?

At the end of the First Mid-Term Plan period, HU analyzed financial data stored by budgetary items and education/research units, identifying areas for improvement and setting cost control targets in HU's budget as a year-on-year decrease by 1.5% in and after AY 2010 and by 5.0% in and after AY 2013. As a result, HU's management costs (excluding costs relating to the Hospital) upon the settlement of accounts in AY 2015 dropped from AY 2009, the final year of the First Mid-Term Plan period, by 580 million yen. HU also sorted out financial reinforcement measures in terms of income increase, cost reduction, and system reform during the Mid-Term Plan period. Based on the above, in AY 2012, HU's Financial Reinforcement Working Group enumerated priority challenges to tackle, put them together into an action plan for financial reinforcement. Accordingly, starting from AY 2013, bidding for land and building rental for the installation of automatic vending machines was carried out, with the contractual rental unit changed from the surface area occupied by machines to sales generated by them. As a result, the rental revenue amounted to about 2.2 million yen. The Action Plan 2013 Working Group, established in AY 2013, continued deliberations and, from the standpoint of reviewing service contracts signed with external parties, switching to direct employment of personnel for campus patrols and other daytime campus security duties formerly indirectly employed, thus resulting in a cost saving of about 6 million yen per year. During the Second Mid-Term Plan period, HU commenced a redevelopment project on the Kasumi Campus, including the construction of a new consultation ward. In view of the acquisition of new fixed assets resulting from the project, profit and loss analysis was conducted in consideration of an increase in the depreciation expense and long-term loan, which were concluded as a transient phenomenon.

Are necessary activities pursued to ensure sustainable and stable hospital administration?

Hiroshima University Hospital (HUH) promotes inventory and cost reduction and income increase and ensures stable hospital administration by controlling all cost items relating to medical acts, evaluating revenues, and examining problems.

HUH uses a Hospital Management Accounting System (HOMAS) for national university hospitals to calculate monthly costs classified by hospital departments and units, conducting a factor analysis of departments with significant differences in monthly profits from medical services from the previous year. To obtain more readily clinically applicable data from cost accounting-based analysis, HUH commenced the use of a new cost accounting-based hospital administration support system, Medical Code (MC). HUH initialized the new system for analysis by Diagnosis Procedure Combination (DPC) and other parameters based on cost data and confirmed its compatibility with HOMAS. HUH conducted bubble chart analysis of income, expenses, and earnings by MDC6 classification and DPC, and break-even point analysis of the numbers of days of hospitalization of the most frequently occurring DPC categories. Based on actual inventory results upon the settlement of accounts and upon interim accounting, HUH drew up a list of materials not accounted for. The list was then distributed to the divisions in charge of inventory control to raise their awareness and locate the materials. HUH also conducted a comparative study of inventory-based amounts and the balances on the books, followed by a factor analysis, putting in place, and ensuring thorough implementation of, measures to prevent data input omissions, faulty inventory counts, and other errors. Concerning one of the factors for the differences, data input omissions, HUH looked into orders for syringes

and, confirming the need for remedial actions given the considerable quantity and monetary sum involved, put in place measures for effectuating thoroughly accurate inputs and eliminating differences. Furthermore, HUH calculated the drug and material stock rates of the respective departments, and those with high stock rates were listed for stock reduction measures, such as readjustment of the designated quantities of stock and purchase and the number of items, thereby promoting inventory reduction.

HUH used the Management Data Warehouse (DWH) to draw up operational management tables once a month (at the time of the issuance of provisional medical fee statements), comparing differences in physical distribution data and clerical data, to prevent the omission of claims for drugs and materials and promote their appropriate use.

Is fairness in contracts ensured through information disclosure on elective contracts and other means?

Since AY 2011, HU has ensured fairness in contracts by maintaining the upper limit of the monetary value involved in an elective contract at two million yen. For the purchase of general office supplies and printing services, HU makes purchasing decisions in open competitive bidding if the total purchase price per contract is expected to surpass one million yen, and even below two million yen. At the same time, HU disseminates information in an appropriate manner by, for example, publishing information on elective contracts, calls for bidders, and so forth on HU's official website. As a result of the above, in AY 2015, 43.13% of HU's purchases each worth two million yen or more and below five million yen were made by open competitive bidding.

I. Operation management and finance
 (3) Goals relating to self-monitoring and evaluation and information dissemination thereon
 <1> Evaluation improvement goals

Mid-Term Goals Continuation of the education/research units toward the improvement of their strengths and characteristics

Mid-Term Plan	AY 2015 Annual Plan	Progress status		Reasons for evaluation results (status of Plan implementation and other factors)	Weighted points	
		Mid-Term	Annual		Mid-Term	Annual
[20] [Measures for achieving the evaluation improvement goals] Third-party evaluation of the education/research units based on their self-monitoring and evaluation, verification of evaluation contents and implementation systems, and review and modification as deemed necessary	/	III	/	(Summary of the status of Plan implementation from AY 2010 to AY 2014) In the evaluation of the education/research units, the status of activities in areas requiring improvement and results from such activities were repeatedly verified. The external councilors of the Administrative Council evaluated the education/research units twice a year (in September and March in the following calendar year) and drew up reports. HU maintained a system in which matters mentioned in the reports were presented to the units concerned, and the details of remedial measures were directly reported by Deans /Directors of the units concerned to the President.	/	/
	[20] [Measures for achieving the evaluation improvement goals] Verification of the results of the previous year's evaluation of the education/research units and review and modification of evaluation contents and implementation systems as deemed necessary			III		
				Weighted points – subtotal		

I. Operation management and finance
 (3) Goals relating to self-monitoring and evaluation and information dissemination thereon
 <2> Goals relating to the promotion of information disclosure and dissemination

Mid-Term Goals	Disclosure of information on overall university management
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Mid-Term Plan	AY 2015 Annual Plan	Progress status		Reasons for evaluation results (status of Plan implementation and other factors)	Weighted points	
		Mid-Term	Annual		Mid-Term	Annual
[21] [Measures for achieving the goals relating to the promotion of information disclosure and dissemination] Active dissemination of information on the status of overall university management, including self-monitoring and evaluation of the education/research units, through the website and other means	/	/	/	(Summary of the status of Plan implementation from AY 2010 to AY 2014) HU carried out effective and multifaceted information dissemination using external services, including the opening of HU's official Twitter and Facebook accounts and the uploading of video clips of the President's regular press conferences, entrance ceremonies, and academic degree conferring ceremonies. To reinforce HU's information dissemination targeting audiences outside Japan, HU carried out strategic PR activities, including the opening of a website for prospective international students, HU's official English-language Facebook account, and a pilot smartphone-compatible website dedicated to entrance examinations targeting prospective applicants in Japanese, English, and Chinese.	/	/
		III				

I. Operation management and finance
 (3) Goals relating to self-monitoring and evaluation and information dissemination thereon
 <3> Goals relating to the promotion of strategic PR activities

Mid-Term Goals Publicity of outstanding achievements in education, research, healthcare and other areas by HU faculty and past and current students, to clearly promote HU's presence in society

Mid-Term Plan	AY 2015 Annual Plan	Progress status		Reasons for evaluation results (status of Plan implementation and other factors)	Weighted points	
		Mid-Term	Annual		Mid-Term	Annual
[22] [Measures for achieving the goals relating to the promotion of strategic PR activities] Functional improvement of the Tokyo Office as the information dissemination/reception center in the Tokyo Metropolitan Area	IV			(Summary of the status of Plan implementation from AY 2010 to AY 2014) <u>HU established a system at the Tokyo Office of meeting all sorts of needs of HU in domestic and international arenas, with the Vice Executive in charge of the Tokyo Office appointed as Director of the Tokyo Office, supported by a staff composed of coordinating and clerical members: information gathering on national policy trends at MEXT and the Council for Science, Technology and Innovation, information transmission to HU, the organization of information meetings on HU's research results in response to requests by media organizations, coordination with Hiroshima Prefecture's business attraction campaign, and so forth.</u> HU also improved information provided to graduates quantitatively and qualitatively through reinforced collaboration with Hiroshima Prefecture's Tokyo Office, with which the Tokyo Office commenced active information exchange on a daily basis. In concrete terms, (1) HU commenced the distribution of a Tokyo Office e-magazine to HU graduates, corporate partners, and other related parties in Greater Tokyo (about 3,900 addressees) to periodically disseminate information on HU's education and research activities; (2) HU organized the Tokyo Evening Seminar, in which HU researchers themselves present HU's research results (held 19 times in total); (3) HU assisted HU undergraduate students in their employment search in Greater Tokyo (a bus tour for interaction between students and recent graduates, provision of a lounge for students during their job search, etc.); and (4) HU held press conferences in Tokyo about HU research results. These activities were all favorably received.		
				Weighted points – subtotal		
				Weighted points – grand total		

(3) Special Remarks about Self-monitoring and Evaluation and Information Dissemination thereon

1. Special remarks

Self-monitoring and evaluation

[AY 2010-2014]

Self-monitoring and evaluation by the respective education/research units were continued, with the PDCA cycle well established for this purpose. Deans/Directors of the units were subjected to periodic evaluation by the external councilors. During this process, orientation for improvement was presented from a university-wide perspective. (Plan No. [20])

Directors of the National Joint Usage Facilities and Joint Education and Research Facilities located on HU's premises and at facilities attached to HU Graduate Schools presented the challenges facing, and future visions for, the facilities to the Executives and Deans/Directors of the education/research units. This led to activities for reinforcing the positive characteristics of the facilities.

HU established a system for verifying undergraduate and postgraduate education by forming The Committee for Quality Assurance in Education as an independent organization under direct management of the Executive and Vice President (Education and Higashi Senda). An effective PDCA cycle was maintained in operation for self-monitoring and evaluation by the respective education/research units, with evidentiary data collected from questionnaire surveys conducted with students upon graduation and the completion of postgraduate programs, leading to continuous improvement.

[AY 2015]

To ensure evaluation from a global perspective, non-Japanese members were added to the Administrative Council (external councilors). The effects of their participation were manifested, among others, in the opinions presented in meetings concerning the importance of training students with a deep understanding of the economy and politics in Southeast Asia and their relations with Japan.

To incorporate students' opinions into university administration, opinions were exchanged between students and the external councilors of the Administrative Council. The students' wishes and views, such as a wish for more opportunities for interaction between Japanese and international students outside classes, were reflected in university-wide improvement.

To guarantee the quality of education in accordance with international criteria and standards, HU joined the Student Experience in the Research University (SERU), an international consortium of universities. HU invited SERU executives and held workshops on the evaluation of education and meetings in which HU's Evaluation Committee chair and administrative staff exchanged views with the SERU executives with an eye to constructing international evaluation indices. HU aims at developing SERU-based evaluation on a nationwide scale to contribute to Japanese universities' quality assurance activities.

HU constructed an education and research information gathering system (DWH) to centralize HU's information management and reinforce HU's information dissemination on research results and academic activities. Following its trial use by scientific education/research units in AY 2014, the system was put to university-wide use by all the units in AY 2015. DWH data on individual academic faculty members' education, research, social contribution, and other activities were used for evaluation and reflected in their treatment. In the future, HU intends to use a variety of

data accumulated in the system for important management decision making and the evaluation of the education/research units. HU also intends to carry out comparative analysis with various universities around the world to promote appropriate activities toward the goal of becoming one of the world's 100 best research universities. (Plan No. 20)

Active information dissemination on HU's financial situation

[AY 2010-2014]

Throughout the Second Mid-Term Plan period, HU provided information on its financial situation in simple and accessible manners suited to the respective categories of HU stakeholders. To inform the students' parents of HU's financial situation, HU sent financial reports by post along with tuition fee bank transfer request forms. The financial reports featured graphs and photos to provide information in an accessible manner mainly on the subjects that would interest the parents most, such as expenses for HU's education and research activities, grants from the national government, and the use purposes of tuition fees. HU's financial statements were also summarized and published on HU's official website for active information sharing.

[AY 2015]

HU continued disseminating information on HU's financial situation in manners suited to the respective categories of HU stakeholders. HU drew up "Financial Report 2015" for the students' parents and sent copies along with tuition fee bank transfer request forms by post. A summary of HU's financial statements was published on the official website. In AY 2015, the Evaluation Committee organized the first information meeting in which HU's financial situation and financial statements, often difficult to understand for lay persons, were explained and commented on by the staff in charge of financial affairs. This proved a good opportunity to provide an outline of HU's financial situation widely to HU members.

Improvement and reinforcement of information dissemination

[AY 2010-2014]

To reinforce HU's information dissemination in an attempt to increase the number of entrance examination applicants, HU carried out PR activities through the effective use of its official website. On HU's student information website "Hirodaisei-no-moto [essence of HU students]." new content, "Let's interview HU students!" was added, featuring video clips.0026d a H(e ban)wstuitioT413

HU carried out effective and multifaceted information dissemination using external services, including the opening of HU's official Twitter account ahead of the other national universities in Japan. Continuing along the same line of action, HU also opened its official Facebook account, Hiroshima University video channels, and an official English-language Facebook account to reinforce information dissemination targeting audiences outside Japan. Using HU video channels, HU began uploading video clips of the President's monthly press conferences (about 600 views on average) and entrance ceremonies and academic degree conferring ceremonies (about 2,500 views on average).

The HU President held regular press conferences every month as a platform for the President to transmit HU-related information in his own words, aiming for effective public communication. The total numbers of media organizations (and journalists) that attended the press conferences were 65 organizations (80 journalists) in AY 2010, 75 (96) in AY 2011, 87 (113) in AY 2012, 74 (90) in AY 2013, and 59 (69) in AY 2014.

The numbers of topics covered in media articles as compared to the total numbers of topics covered in the press conferences were 53/110 (about 48%) in AY 2010, 64/121 (about 53%) in AY 2011, 60/121 (about 50%) in AY 2012, 64/127 (about 50%) in AY 2013, and 60/122 (about 50%) in AY 2014.

To conduct PR activities from a user perspective, HU started an external PR monitoring system. HU reviewed and modified the homepage of the official website based on the results of questionnaire surveys conducted with the monitors. (Plan No. 21)

[AY 2015]

Throughout the Second Mid-Term Plan period, HU improved and reinforced its information dissemination through the effective use of its official website. This led HU to consider the adoption of next-generation content management systems (CMS), which HU is currently working on. In preparation for full-scale CMS application, HU modified the design of its official website. HU has thus realized more visually appealing information dissemination on HU's education, research, and other activities and made the website compatible with PCs, smartphones, and tablet terminals.

To improve its global PR activities and promote multilingualism in its online PR activities, HU enriched messages and articles on English-language pages on the official website (about 190 articles published). On HU's website for prospective international students, "Explore HU," Arabic pages were added to promote active information dissemination and international exchange with universities and students in the Middle East. Moreover, HU, mainly through the Research Planning Office, disseminated information through participation in international press release platforms to reinforce HU's capability to transmit information on research results and activities.

As a project typical of HU, which calls Hiroshima City home, special pages were created on HU's official website under the title of "70 Years from the Atomic Bombing" (in Japanese and English) to mark the 70th anniversary of the atomic bombing of Hiroshima. These pages also included the President's video messages (in Japanese and English).

In a meeting on PR planning and strategy, HU reviewed the PR strategies and policy adopted in AY 2014, selecting priority matters on which to focus its efforts for the time being. Accordingly, to improve HU's rate of recognition among prospective admission applicants and their parents, HU ran advertisements in local newspapers and other media around the times of the entrance ceremony and the Open Campus days, transmitting items of information on HU that characterize its establishment, such as its history, founding spirit, five principles, and the President's message. (Plan No. 21)

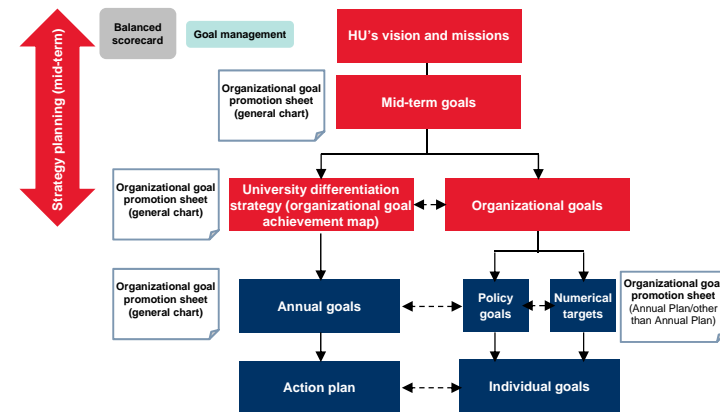
2. Status of activities from a perspective common to the Mid-Term and Annual Plans

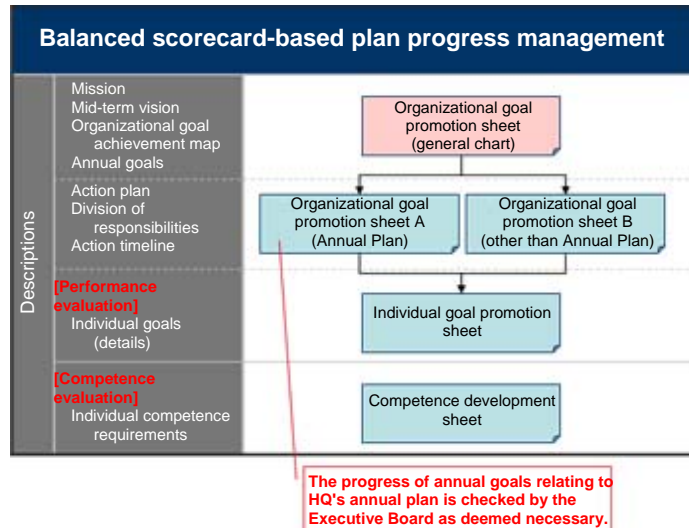
Is the progress of the Mid-Term and Annual Plans managed?

HU uses a balanced scorecard system to manage activities toward the achievement of its goals. Under this system, the Mid-Term and Annual Plans are linked with the plans drawn up and executed by administrative personnel so as to manage progress as well.

The respective Executive offices use a goal management format to self-evaluate the status of progress vis-à-vis the Annual Plan on a quarterly basis. The management system is solidly constructed so as to ensure the execution of plans, with the Executive Board charged with checking the contents of goal management formats and issuing necessary instructions regarding plans that are behind schedule.

Each upcoming year's Annual Plan is drawn up based on deliberations mainly by the Executive Board on whether or not the candidate annual plan is adequate in consideration of the status of progress of the current Annual Plan and the achievements of the Mid-Term Plan.





Are self-monitoring and evaluation steadily executed? Are their results actively utilized in university administration?

Following the evaluation methods and contents applied during the Second Mid-Term Plan period, HU reviewed the “Evaluation Procedures at the National University Corporation Hiroshima University,” which was adopted immediately following its reorganization as a national independent administrative corporation, and adopted the “Evaluation System at Hiroshima University” in AY 2011 and instituted it as a set of regulations in AY 2014. HU constructed a data warehouse capable of collecting and storing information on education, research, social contribution, and other activities by HU’s academic faculty members and information from other organizations, and of providing such stored information for various uses. The full-scale operation of this system commenced in April 2015. HU uses data stored by this system to (1) compile reports on academic faculty members’ activities, (2) enable self-monitoring and evaluation by academic faculty members, (3) enable the education/research units to evaluate individual academic faculty members, (4) disclose information on the academic faculty members’ activities in the form of a researcher directory, and (5) enable the University Management Planning Office to conduct analysis and benchmarking. This system has enabled HU to base its evaluation system on self-monitoring and evaluation, which are used to the maximum for evaluation for certification and national university corporation assessment. An effective response system has thus been established that is applicable to university management. As university-wide self-monitoring and evaluation, the external councilors of the Administrative Council implement the organizational evaluation of the education/research units. Each year, evaluation covers pre-selected themes, and methods for evaluation implementation are also continuously reviewed based on the external councilors’ opinions. Regarding matters identified as requiring remedial action in the organizational evaluation, the units concerned examine possible responses and take action for improvement. The details of such improvement are further examined in an exchange of opinions between the external councilors and the units, thereby making use of evaluation results for the University Corporation’s management.

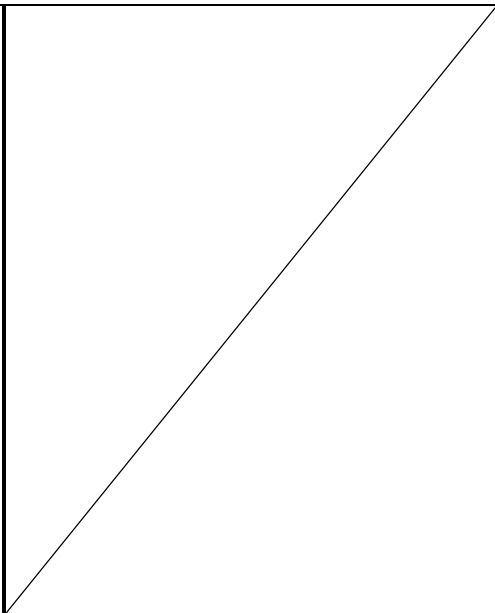
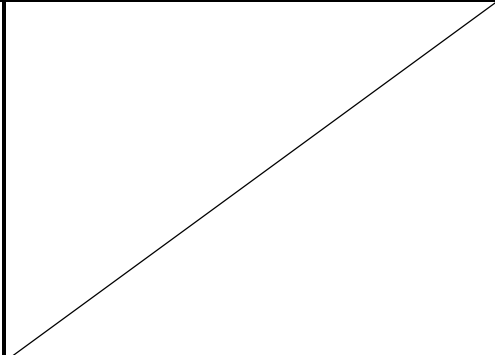
Is information disclosure promoted?

Throughout the Second Mid-Term Plan period, HU made concentrated use of its official website to effectively disseminate information on its education, research, and other activities. For example, new pages have been added to the official website to provide information specifically addressed to prospective entrance examination applicants and international students, in an attempt to increase their numbers. New online contents include “Let’s interview HU students!” featuring video clips of interviews with current HU students and introducing the lives of actual HU student, and “Explore HU,” disseminating information for prospective international students from outside Japan. For multifaceted information dissemination, HU has actively used external services, opening its official Twitter, Facebook, Ustream, and YouTube accounts/channels. HU is currently preparing for the adoption of next-generation content management systems (CMS) to improve its official website (that is, increase user convenience, facilitate information searches, and make it smartphone-compatible). To reinforce its PR activities and capabilities targeting audiences outside Japan, HU promoted multilingualism on the official website. English and Chinese versions have been made available of the most frequently accessed pages on the website. HU has opened an official English-language Facebook account. HU has added pages in Arabic of the “Explore HU” content to promote academic and student exchange with universities and students in the Middle East. To reinforce its university-wide PR mechanism, HU organized a university-wide PR planning and strategy conference, adopting the “Hiroshima University Basic Policy for PR Activities” and “Hiroshima University PR Strategy.” HU later reviewed the latter, selecting priority matters on which to focus its efforts and carrying out PR activities accordingly.

I. Operational management and finances
 (4) Other important goals relating to operational management
 <1> Universal design goals

Mid-Term Goals
 (1) Promotion of on-campus universal design application from student, faculty, and user perspectives, and active utilization of facilities embodying universal design
 (2) Realization of an inclusive workplace environment with no boundaries between those with and without disabilities

Mid-Term Plan	AY 2015 Annual Plan	Progress status		Reasons for evaluation results (status of Plan implementation and other factors)	Weighted points	
		Mid-Term	Annual		Mid-Term	Annual
[23] [Measures for achieving the universal design goals] Adoption of an annual development plan based on the Facility Development Grand Design, followed by facility development	/	III		(Summary of the status of Plan implementation from AY 2010 to AY 2014) An annual facility development plan was adopted based on the Facility Development Grand Design in AY 2011, and the following facility development projects were undertaken: Hospital facility development: the construction of a new consultation ward (AY 2009-2013), the renovation of the former outpatient ward and the central consultation ward (AY 2013-2014), and the construction of a residential facility for medical interns (“Ryozanpaku”; AY 2010) and a residential facility for inpatients’ families (“Family House”; AY 2014). Renovation of decayed facilities completed, including Attached High School building renovation in Midori District (AY 2011), infrastructural and environmental renovation on Kasumi Campus (in-house power generation system; AY 2011), experimental research building (A1, A3, and A4) renovation (School of Engineering, AY 2012-2014), Attached High School gymnasium renovation in Kasuga District (AY 2012), Attached Elementary School gymnasium renovation in Midori District (AY 2012), and infrastructure (water supply system) renovation on Higashi-Hiroshima Campus (AY 2012). Outdoor environmental development, mainly including the renovation of roads and parking lots on Higashi-Hiroshima Campus.		
	[23] [Measures for achieving the universal design goals] Renovation of decayed facilities and the improvement and development of students’ daily and education/research environments based on an annual facility development plan			(Summary of the status of Plan implementation in AY 2015) [23] Renovation of decayed facilities completed, including clinical research building renovation on Kasumi Campus (January 29) and dentistry-related lecture building (D) renovation (February 19). Improvement and development of students’ daily and education/research environments completed, including Attached Shinonome Junior High School building and lavatory renovation (October 2), Ikenoue Students Residence No. 5 building shower room renovation on Higashi-Hiroshima Campus (October 30), Innovative Research Center construction on Higashi Senda Campus (December 18), Central Library air-conditioning system renovation on Higashi-Hiroshima Campus (October 30), and Satake Memorial Hall ceiling seismic reinforcement work (February 29).		

<p>[23] Effective utilization of facilities through facility management</p>		<p>III</p>	<p>(Summary of the status of Plan implementation from AY 2010 to AY 2014) <u>New flexible-use spaces totaling 2,293 m² were created (in the joint-usage scientific sample storage facilities, the Faculty of Science research building, joint-use building 1, and the Faculty of Engineering research building), bringing the total surface area to 8,717 m². At present, 32 research teams use flexible-use spaces totaling 2,255 m², and 31 organizations, a total of 3,999 m².</u> HU conducted a fact-finding survey about facility use in nine education/research units, libraries, research centers and lecture rooms, detecting problems to solve with regard to facility use. The units covered in the survey <u>began readjustment of space allocation</u>, in response to suggestions for improvement made at a facility management meeting. For more effective utilization of the education/research spaces, HU <u>reviewed its surface area standards</u>. Revised standards will be used in the future to secure flexible-use spaces and ensure their effective use. As energy-saving measures through the use of equipment, <u>HU introduced LED lighting, replaced air-conditioning equipment and transformers with more energy-saving models, and installed solar power generating equipment and double-layered glass panels.</u> As an energy-saving measure through human endeavors, HU began posting figures indicating daily power consumption and power consumption by the respective education/research units on the Higashi-Hiroshima and Kasumi Campuses to encourage personnel to reduce power consumption. HU also began <u>visualizing real-time maximum power demand</u> and implemented measures to lower power consumption peaks in summer and winter.</p>	
	<p>[23] Creation of flexible-use spaces as part of facility development, construction and utilization of rental laboratories, and effective facility utilization through review of facility functions and introduction of energy-saving equipment and devices</p>	<p>III</p>	<p>(Summary of the status of Plan implementation in AY 2015) [23] On the occasion of the renovation work of the Faculty of Engineering experimental research building, HU secured 41 rooms totaling 1,826 m² (including 18 rental laboratories of 761 m² in total) as flexible-use spaces. HU renovated the existing flexible-use spaces, including the renovation of the air-conditioning equipment and an increase in power sources, to enhance their functionality. HU conducted a fact-finding survey about facility use by the Graduate School of Engineering and the Graduate School of Social Sciences. <u>The survey results and suggestions for more effective facility use were presented</u> to the education/research units concerned at a facility management meeting. As an energy-saving measure, on the occasion of some renovation projects, <u>decayed equipment was replaced with higher-efficiency equipment for energy conservation</u>, including the dentistry-related lecture building (D) renovation and clinical research building renovation on Kasumi Campus, and the Central Library air-conditioning system renovation on Higashi-Hiroshima Campus.</p>	
<p>[23] Steady promotion of the inclusive employment plan</p>		<p>III</p>	<p>(Summary of the status of Plan implementation from AY 2010 to AY 2014) To promote the recruitment of people with disabilities based on HU's inclusive employment plan adopted in 2008, HU launched a project to hire and assign administrative faculty members with disabilities to duties relating to learning environment development, gradually expanding the scope of the project. To realize a workplace environment in which personnel with disabilities assigned to learning environment development can work with a deeper sense of purpose, HU introduced a leader staff member system, in which older and more experienced staff members support younger and less experienced ones. These measures supported the continuation of employment of personnel with disabilities, and <u>the percentage of employees with disabilities reached 2.3% in AY 2014, identical to the legally mandatory percentage.</u> <u>To raise the academic and administrative faculty members' universal design consciousness, HU offered an online accessibility course to the entire faculty and included trial participation</u></p>	

			<p><u>in environmental development duties and lectures on accessibility in the training program for newly recruited administrative faculty members.</u> HU thus promotes the acceptance of greater diversity in personnel. As a result of these measures effective in deepening accessibility consciousness and knowledge, <u>the number of academic and administrative faculty members who passed the Second Grade Accessibility Leader (AL) qualification examination steadily increased (from 21 in AY 2010 to 54 in AY 2014).</u></p>		
	<p>[23] Continued promotion of recruitment of people with disabilities through exploration of work duties, and improvement and expansion of measures for raising faculty members' universal design consciousness using the "Common Educational Program for Students and Faculty"</p>	<p>III</p>	<p>(Summary of the status of Plan implementation in AY 2015) [23] HU continued the employment of people with disabilities and their assignment to duties relating to learning environment development and the leader staff member system, thereby maintaining <u>the percentage of employees with disabilities at 2.3%, identical to the legally mandatory percentage.</u> The environment team within the personnel group in charge of learning environment development duties carried out various activities in and outside HU, promoting the employment of people with disabilities and general understanding about HU's drive for inclusive employment . The team's contribution to the local communities included serving as lecturers in liberal arts seminars for HU undergraduate students, organizing workplace experience for students in special needs classes in HU's Attached Schools and other schools in Higashi-Hiroshima City, and receiving visitors, whose purposes of visit to HU range from the Graduate School of Education consulting service to participation from the Japan Down Syndrome Society in the inclusive workplace experience. To raise the academic and administrative faculty members' universal design consciousness, HU offered an online accessibility course to the entire faculty. <u>To further raise the faculty's accessibility consciousness in view of the enactment of the Disability Discrimination Act, HU included lectures on accessibility in the training program for academic and administrative faculty members newly recruited in AY 2016.</u></p>		
			<p>Weighted points – subtotal</p>		

I. Operational management and finances
 (4) Other important goals relating to operational management
 <2> Security management goals

Mid-Term Goals	(1) Reinforcement of internal control functions for risk management (2) Reinforcement of the security foundation and the improvement of information management systems and functions
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Mid-Term Plan	AY 2015 Annual Plan	Progress status		Reasons for evaluation results (status of Plan implementation and other factors)	Weighted points	
		Mid-Term	Annual		Mid-Term	Annual
[24] [Measures for achieving the security management goals] Construction of an integrated risk management system covering prevention (at ordinary times), emergency response, and recovery	/	III	/	(Summary of the status of Plan implementation from AY 2010 to AY 2014) To improve its risk management functions, HU adopted <u>“Basic Regulations on Risk Management”</u> and <u>“Regulations on Disaster Preparedness”</u> (instituted on April 1, 2013). <u>This was followed by a total revision of the four existing manuals of responses to different types of risks and the compilation of the “Basic Manual for Risk Management,” which was then shared on a university-wide basis to further improve HU’s risk management systems. HU also drew up a table of systems comprising regulations concerning risk management and other related matters (classified by system, with links to relevant regulations), which was shared on a university-wide basis.</u> Following the establishment of the risk-management regulations, HU periodically examined them for review and partial modifications.	/	/
[24] [Measures for achieving the security management goals] Establishment of university regulations relating to internal control for risk management, as necessitated by changes in the written statements of operational methods concerning internal control system development	[24] [Measures for achieving the security management goals] Establishment of university regulations relating to internal control for risk management, as necessitated by changes in the written statements of operational methods concerning internal control system development	III	/	(Summary of the status of Plan implementation in AY 2015) [24] Following changes in the written statements of operational methods, <u>HU inspected the university rules and regulations relating to internal control for risk management. HU also examined the “Basic Manual for Risk Management” and the emergency communication system, revised the internal rules and regulations following changes in the operational organization, and informed HU members of changes.</u>	/	/
[24] Development and improvement of a university-wide unified ID system foundation to reinforce information security and compliance	/	III	/	(Summary of the status of Plan implementation from AY 2010 to AY 2014) (Utilization of the university-wide unified ID system) In accordance with the University-wide Unified ID System Development and Utilization Plan adopted in AY 2011, <u>HU integrated some of its security management systems (including those for educational terminal log-in authentication, automatic student certificate issuing machine user authentication, attendance/absence control, building entrance/exit control, and vehicular entrance gate control) into a unified system compatible with the HU student and employee ID cards bearing an integrated circuit card (ICC).</u> HU thus reinforced information security, personal information control, and student support. (Information security and compliance education, information security training) <u>HU continued information security and compliance education for all students, which was commenced in AY 2011.</u> HU reinforced information security measures and information compliance through this educational program, for which physical and online seminars were held and educational materials were prepared in English and Chinese for international	/	/

		<p>students. <u>For the academic and administrative faculty members, HU commenced information security training in AY 2012 at the rate of several times per year. Training themes were selected each year in consideration of the societal context at each time.</u> HU thus reinforced its information security measures. (Package license, anti-virus software) HU maintained the package Microsoft license agreement first signed in AY 2010 and the anti-virus software agreement first signed in AY 2012 for university-wide use by the entire HU community to prevent illegal software use by HU members and reinforce information security measures.</p>	
	<p>[24] Verification of the University-wide Unified ID System Development and Utilization Plan and its improvement as deemed necessary based on the previous year's results of verification of information security and compliance reinforcement projects</p>	<p>(Summary of the status of Plan implementation in AY 2015) [24] (Utilization of the university-wide unified ID system) HU reviewed the status of implementation of relevant measures in accordance with the University-wide Unified ID System Development and Utilization Plan and following deliberations by the working group that examined system utilization. In AY 2015, HU integrated more security management systems, such as those for corporate headquarters, the library, Graduate School of Science building entrance/exit control, Higashi Senda Campus entrance gate control, and the medical examination data gathering system, into a unified system compatible with the HU student and employee ID cards bearing an integrated circuit card (ICC). While continued examination was deemed necessary for certain usages, such as clerical terminal log-in authentication, confirming the <u>university-wide utilization of the unified security management system (in such areas as educational terminal log-in authentication, automatic student certificate issuing machine user authentication, attendance/absence control, building entrance/exit control, and vehicular entrance gate control)</u>, HU decided to continue promoting the Development Plan to reinforce its information security, personal information control, and student support. III (Information security and compliance education, information security training) HU analyzed the effects of the main information security measures implemented, with reference to information security incidents occurring at HU. In view of the previous year's verification results, which led to the conclusion that relevant education and training were necessary, <u>HU continued information security and compliance education for all students, which was commenced in AY 2011</u>, to reinforce the information security measures and information compliance (attendance rates: freshman seminars for newly admitted students [physical]: 93.6% [3,149 attendants], follow-up seminars for current students [online]:88.7% [10,719 attendants]). <u>For the academic and administrative faculty members, HU continued information security training, which was commenced in AY 2012, offering two courses that were each held four times during the year. The training theme, reviewed and selected each year, was the latest cyber crimes (624 attendants in total).</u> (Package license, anti-virus software) HU maintained the package Microsoft license agreement first signed in AY 2010 and the anti-virus software agreement first signed in AY 2012 for university-wide use by the entire HU community to prevent illegal software use by HU members and reinforce information security measures.</p>	
		<p>Weighted points - subtotal</p>	

I. Operational management and finances
 (4) Other important goals relating to operational management
 <3> Legal compliance goals

Mid-Term Goals	Appropriate corporation/university management in compliance with laws and regulations
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Mid-Term Plan	AY 2015 Annual Plan	Progress status		Reasons for evaluation results (status of Plan implementation and other factors)	Weighted points	
		Mid-Term	Annual		Mid-Term	Annual
[25] [Measures for achieving the legal compliance goals] Improvement in internal auditing functions and periodic organization of legal compliance awareness-raising activities for students and faculty	/			(Summary of the status of Plan implementation from AY 2010 to AY 2014) HU carried out in-house <u>training for the students and faculty on the protection of personal information</u> each year during the period: Training programs for academic and administrative faculty members (training for newly recruited faculty members with 948 participants in total, training on the protection of personal information with 427 participants in total) Training programs for students (training for teaching assistants [TA] with 784 participants in total) <u>The Audit Office and the General Affairs Group jointly audited the management of personal information and corporate documents</u> (the units were divided into three groups, and each group comprising about 20 units was audited each year during the period). <u>In AY 2013, HU distributed a written notice on obligatory strict management of personal information to all the academic and administrative faculty members under an employment contract with HU and collected from them a written statement of their consent to the obligation.</u>		
		III	III	(Summary of the status of Plan implementation in AY 2015) [25] With regard to the protection of personal information, HU <u>carried out training for academic and administrative faculty members: training for newly recruited faculty members</u> (April and October, 215 participants in total) and <u>training on the protection of personal information</u> (November and January, 249 participants in total). HU also <u>carried out training for students who served as teaching assistants (TA)</u> (April and May, 295 participants in total) <u>in the form of legal compliance awareness-raising lectures. The contents of the training programs were carefully planned based on the results of the questionnaire survey conducted in the previous academic year.</u> <u>The Audit Office and the General Affairs Group jointly audited about 20 units in February, inspecting the status of personal information and corporate document management by the respective units. Auditing results were sent to the units concerned.</u> The units in which improvement was adjudged necessary for personal information management, corporate document storage, and other relevant matters were requested to take prompt remedial action; their improvement was later confirmed.		
				Weighted points - subtotal		
				----- Weighted points – grand total		

(4) Special Remarks about other aspects of operational management

1. Special Remarks

Risk management system construction

[AY 2010-2014]

To improve its risk management functions, HU took measures to completely separate smoking and non-smoking areas on its premises and adopted the Hiroshima University Basic Policy for Passive Smoking Prevention Measures on February 23, 2011, thereby totally prohibiting smoking both indoors and outdoors on the HU premises, except in designated smoking areas. These measures correspond to passive smoking prevention measures as defined under Article 25 of the Health Enhancement Act.

To promote and improve environmentally responsible activities, HU established and announced on a university-wide scale "Environmental Management Regulations" on April 1, 2011, developing an environmental management system.

HU installed additional surveillance cameras at the entrances/exits of the university buildings to reinforce the crime prevention system. HU also effectuated centralized control of the cameras (89 in total), enhancing their anti-crime effectiveness.

To improve its disaster responsiveness, HU signed an agreement for cooperation at times of disaster with the Hiroshima University Consumers' Cooperative Union on January 25, 2012. The emergency actions specified in the agreement include the supply of food, drinks and daily items, the use of cafeterias and other facilities for disaster response activities, the provision of equipment and transportation vehicles, and the offer of services required for disaster response activities.

To establish systems for improving risk management functions, HU adopted "Basic Regulations on Risk Management" and "Regulations on Disaster Preparedness" on April 1, 2013, based on which the "Basic Manual for Risk Management" was prepared. [Plan No. 24 (1)]

[AY 2015]

HU participated as a member in the promotional conference for the "Hiroshima Prefectural People's All-out Disaster Reduction Movement," established in Hiroshima Prefecture to make it more disaster-resistant. HU presented its disaster reduction activities to assist Hiroshima Prefecture in drawing up an action plan.

To improve its disaster responsiveness, HU signed a tripartite agreement for cooperation at times of disaster with Higashi-Hiroshima City and the Higashi-Hiroshima Municipal Social Welfare Council on March 23, 2016. Under this agreement, HU is committed to offer its facilities as evacuation shelters and distribution centers of materials and supplies at the time of a major disaster in Higashi-Hiroshima City. The agreement also enables HU to support the municipal government in its activities and request it to supply food and materials if the HU members are unable to go home due to the disaster.

2. Status of activities from a perspective common to the Mid-Term and Annual Plans

Are legal compliance systems and regulations appropriately established and utilized?

For legal compliance, HU has regulations and other management systems concerning different subjects, such as information security, harassment, conflict of interest, and research ethics. Regarding particularly important matters, reports are made at the Executive Board meetings and other Executive meetings to promote information sharing. To inform the students and faculty of related matters, HU organized a range of training programs and seminars (on harassment, personal information protection, information security, and so forth).

Are risk management systems and regulations concerning disasters, incidents, and accidents appropriately established and utilized?

To improve its risk management functions, HU established a Risk Management Council, with a person in charge of risk management, and adopted "Basic Regulations on Risk Management" and "Regulations on Disaster Preparedness" (instituted on April 1, 2013). Consequently, the four manuals of responses to different types of risks (earthquake, storm and flood [typhoon], fire, and suspicious persons) were totally revised and put together as the "Basic Manual for Risk Management." The newly established regulations and manuals were then shared on a university-wide basis to further improve HU's risk management systems. HU classified risk factors in the respective operational duties and drew up a table of systems comprising regulations concerning risk management and other related matters, which was shared on a university-wide basis. Following the establishment of the risk management regulations, HU periodically examined them for review and partial modification. Furthermore, following changes in the written statements of operational methods (revised on April 1, 2015), HU inspected the university rules and regulations relating to internal control for risk management and reviewed the "Basic Manual for Risk Management" and the emergency communication system in consideration of changes in the operational organization. The changes thus effectuated were publicized on a university-wide scale.

[AY 2010-2014]

Activities relating to legal compliance

(1) Activities conducted to prevent the illegal use of public research funds

To develop an integrated system to prevent illegal acts as part of research activities and the illegal use of research funds and other resources, HU established the Research-related Irregularity Control Office.

To prevent the illegal use of research funds and other resources, HU revised the Hiroshima University Regulations on Prevention of Unauthorized Use of Research Funds, putting in place institutional measures such as (1) the appointment of persons in charge of promoting legal compliance, (2) the collection of written pledges for legal compliance by the academic and administrative faculty members, and (3) the setting of limits on the reporting period of investigations about irregularities for organizations allocating funds. At the same time, HU adopted the Fourth Action Plan (revised) for the prevention of illegal use of research funds and other resources on March 30, 2015.

In March 2015, HU began collecting from the academic and administrative faculty members a written confirmation regarding the use of research funds and other resources (confirming their consent to the obligatory observance of related laws and regulations, disciplinary measures applicable to offenders, and legal responsibility, accompanied by an English translation). In collecting the confirmations, HU used the accounting support system used to validate the dispensing of research funds so as to prevent the members from failing to submit their consent. This collection is repeated each academic year. Regarding highly cash-convertible materials that require particularly careful management, in addition to those whose acquisition price is 100,000 yen or higher and which are managed by the attachment of identification stickers, HU has designated materials that must be managed in the same manner even though their acquisition price may be below 100,000 yen (PCs, tablet computers, digital cameras, video cameras, TV sets, and recording devices), and this has been made known on a university-wide scale for effective management.

Based on the Third Action Plan for the prevention of illegal use of research funds and other resources adopted on March 30, 2012, HU conducted in AY 2013 a questionnaire survey to measure the degree of penetration of regulatory compliance consciousness with regard to the use of funds, and to deepen such consciousness, among HU's academic and administrative faculty members. The response rate was 52.6%. HU also updated the pages on the official HU website on the university's efforts for the prevention of illegal use of funds and other resources, systematically rearranging the contents to make them more accessible to viewers and including awareness-raising materials. Moreover, the training programs for newly recruited faculty members conducted in April and October each year also covered the fair and legal use of research funds and other resources. In AY 2013 and AY 2014, the President attended the Faculty Meetings of the respective education/research units to speak on the fair and legal use of research funds (a total of 12 times). (Plan No. [25])

To improve HU's system of order placement and delivery inspection, authorities and responsibilities were made clearer: for example, in and from AY 2010, the academic faculty members were authorized to directly place orders for amounts not exceeding 500,000 yen and inspect delivered goods at their own responsibility. Moreover, delivery control centers were established on the Higashi-Hiroshima and Kasumi Campuses to put in place a system enabling inspection by those other than ordering parties. HU signed a basic business agreement with suppliers with whom HU had transactions exceeding specified quantities. The agreement includes provisions requiring remedial measures surpassing ordinarily applied ones in the event of irregularities (imposed with a period of business suspension), thereby implementing measures to prevent illegal use involving suppliers as well.

(2) Activities conducted to prevent illegal acts as part of research activities

In the training programs conducted in AY 2014 (April and October) for newly recruited academic and administrative faculty members, the Executive and Vice President (Research) spoke on the subject of researchers' attitude toward research, including the problem of irregularities (this was repeated in AY 2015).

In response to the new guidelines presented by MEXT, the newly established Research-related Irregularity Control Office worked on the institution of new internal regulations governing HU's responsibilities, researchers' responsibilities, including participation in educational programs on research ethics, formalities for responses to irregularities, and other relevant matters.

(3) Activities conducted to enhance information security, including appropriate personal information management

HU's Regulations on Information Security state that the students, faculty, and other members of HU are required to understand the importance of maintaining information security and observe HU's information security policy. Each year during the period, the information security promotion organization reviewed the information security policy and the procedures of its implementation and revised it when the need to do so was detected in the results of mandatory annual self-monitoring by the HU members, thereby enhancing information security and reinforcing information compliance.

Also as activities to enhance information security, which includes the appropriate management of personal information, HU commenced in AY 2011 and continued organizing programs on information security and compliance education for all the students. (Plan No. [24][2]) These programs were conducted in the form of physical and online seminars, and educational materials were prepared in English and Chinese for international students. For the academic and administrative faculty members, HU commenced information security training in AY 2012 at the rate of several times per year. Training themes were reviewed and selected each year in consideration of the societal context at each time. Through these activities, HU improved information security and reinforced information compliance.

(4) Activities conducted to appropriately manage donations addressed to individual academic faculty members

HU's Third (AY 2012-2013) and Fourth (AY 2014) Action Plans for the prevention of illegal use of research funds and other resources mention the mandatory strict observance of the rules

[AY 2015]

Activities relating to legal compliance

(1) Activities conducted to prevent the illegal use of public research funds

HU revised the Hiroshima University Regulations on the Prevention of Illegal Research Fund Use, and the person responsible for promoting legal compliance defined under the same Regulations was replaced by the person in charge of research ethics under the Hiroshima University Regulations on the Prevention of and Responses to Research-related Illegal Acts. Based on the Fourth Action Plan for the prevention of illegal use of research funds and other resources adopted on March 30, 2015, HU conducted a questionnaire survey to measure the degree of penetration of regulatory compliance consciousness with regard to the use of research funds among the HU members.

Furthermore, in April 2015, in addition to inspection at the existing delivery control centers, the inspection of delivered goods commenced in the respective units by personnel in charge, covering also special duties, such as repairs and maintenance. Raising awareness on the fair and legal use of research funds and other resources was part of the training programs for newly recruited academic and administrative faculty members held in April and October 2015 and irregularly held faculty development (FD) meetings for research ethics education. (Plan No. [25])

(2) Activities conducted to prevent illegal acts as part of research activities

HU established and enforced the Hiroshima University Regulations on the Prevention of and Responses to Research-related Illegal Acts to stipulate HU's and researchers' responsibilities, formalities in response to irregularities, and other relevant matters.

With regard to research ethics education, HU established and enforced Hiroshima University Bylaws on Research Ethics Education relating to Research Activities to stipulate details such as educational materials (classified by lecture attendees) and the timing and management of lectures. HU planned and implemented research ethics education FD meetings for all the academic faculty members.

With regard to the conservation and management of research materials, HU established the Hiroshima University Guidelines on the Conservation of Research Materials, indicating the basic ideas of research material conservation and management, including methods and periods, and templates for information sheets useful for orderly recording of information items relating to conservation.

(3) Activities conducted to enhance information security, including appropriate personal information management

HU extensively reviewed its information security policy, which contains university-wide unified standards for information security, and its information security policy procedural manual, which indicates concrete steps, and drafted a revised version commensurate with information security threats, which have continued to become increasingly sophisticated and diversified. (Plan No. [24] [2]) The adoption of the final version is scheduled for AY 2016.

To improve information security and reinforce information compliance, from AY 2011 HU conducted information security and compliance education for all students (attendance rate for freshman seminars for newly admitted students [physical]: 93.6% [3,149 attendants], attendance rate for follow-up seminars for current students [online]: 88.7% [10,719 attendants]). For the academic and administrative faculty members, from AY 2012 HU conducted information security training, offering two courses that were each held four times during the year. The training themes were reviewed and selected each year, and the theme in AY 2015 was the latest cyber crimes (624 attendants in total). HU enhanced its information security and reinforced its information compliance through such educational and training programs.

(4) Activities conducted to appropriately manage donations addressed to individual academic faculty members

To ensure strict observance of the rules concerning the formalities for handling donations, based on the Fourth Action Plan for the prevention of illegal use of research funds and other resources adopted at the end of AY 2014, HU conducted a questionnaire survey to measure the degree of penetration among the HU members of regulatory compliance consciousness with regard to the use of grants and research funds, including the formalities for reception of grants, deepening at the same time the members' understanding of the process of donating grants to the university. The respective education/research units began recording applications for grants and accepted applications in their register to enable status confirmation. Topics relating to the irregular accounting of grants were covered in lectures within the framework of basic training for new recruits and faculty development (FD) meetings for research ethics education.

[Responses to problems detected in the evaluation of the First Mid-Term Plan]

Responses to the illegal use of research funds

With regard to order placement and delivery inspection, authorities and responsibilities were made clearer in AY 2010: the academic faculty members were authorized to directly place orders for amounts not exceeding 500,000 yen and inspect delivered goods at their own responsibility. Moreover, delivery control centers were established on the Higashi-Hiroshima and Kasumi Campuses to put in place a system enabling inspection by those other than ordering parties. HU signed a basic business agreement with suppliers with whom HU had transactions exceeding specified quantities. The agreement includes provisions requiring remedial measures surpassing ordinarily applied ones in the event of irregularities (imposed with a period of business suspension), thereby implementing measures to prevent illegal use involving suppliers as well. Furthermore, in April 2015, in addition to inspection at the existing delivery control centers, the inspection of delivered goods commenced in the respective units by personnel in charge, covering also special duties, such as repairs and maintenance.

HU established plans for the prevention of illegal use of research funds and other resources. To deepen the academic and administrative faculty members' understanding about illegal use prevention based on the plans, HU conducted in AY 2011, AY 2013 and AY 2015 a questionnaire survey to measure the degree of penetration of regulatory compliance consciousness among the HU faculty. In AY 2011, HU opened an accounting support portal on HU's intranet information-sharing system "IROHA," publishing there related notices issued by MEXT and other organizations and articles intended to raise compliance consciousness with regard to fund use, systematically arranging information in an accessible manner in an attempt to spread compliance consciousness on a university-wide scale. The topic of fair and legal use of research funds and other resources was covered in the training programs for newly recruited academic and administrative faculty members held in April and October each year and in irregularly held faculty development (FD) meetings for research ethics education to raise the participants' awareness.

II. Qualitative improvement of education, research, and other activities

(3) Other goals

<4> Goals relating to the Hospital

Mid-Term Goals	<p>(1) Provision of safe and high-quality medical care</p> <p>(2) Contribution to the advancement of local medical care and the fulfillment of HUH's role as a key local medical institution</p> <p>(3) Training of excellent medical professionals</p>
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Mid-Term Plan	Status of Progress	Reasons for evaluation results (status of Plan implementation and other factors)	Weighted points
<p>[10] [Measures for achieving the goals relating to the Hospital]</p> <p>(1) Improvement of the medical examination system through the establishment of new departments and the reorganization of the consultation system as the need arises and the construction of new consultation wards (central and outpatient) capable of responding to future medical care needs</p>	III	<p>(Summary of the status of Plan implementation from AY 2010 to AY 2015) The Hiroshima University Hospital (HUH)'s <u>new consultation ward was built (completed in April 2013, operation commenced in September 2013)</u> to respond to future medical care needs. This brought about functional improvements in medical services: the outpatient consultation sections of the general medical and dental departments were integrated, the number of operating rooms was increased (from 13 to 17), the number of beds for patients receiving chemotherapy was increased (from 14 to 28), and a new dedicated post-operative surgical intensive care unit (SICU, six beds) was opened. Furthermore, following the opening of the Center for Future Medicine, which engages in cell therapy and regenerative medicine, and the Center for Sports Medicine, which takes advantage of HUH's geographical location near the homes of professional baseball and football teams, both within the consultation ward, a system was put in place to promote explorative medicine and provide advanced medical services, directly linking research achievements with medical practices. Within the framework of a project commissioned to HUH by the Japan Agency for Medical Research and Development (AMED), renovation work was carried out to transform a medical device storage room into an intraoperative MRI room and to locate a high-standard operating room in the operation section on the fourth floor of the consultation ward.</p>	
<p>[10] (2) Development of advanced medical care and further improvement of the network with other medical institutions in Hiroshima Prefecture to reinforce collaborative functions</p>	III	<p>(Summary of the status of Plan implementation from AY 2010 to AY 2015) HUH solicited donations under the name of "Hiroshima University Hospital Clinical Grants" to secure financial assistance for basic research that leads to the development of explorative medicine and advanced medical care, thereby supporting quality clinical research, advanced medicine, and translational research. HUH promoted projects based on the Hiroshima Prefecture Community Medicine Regeneration Plan in collaboration with Hiroshima Prefecture, Hiroshima City, the Medical Associations, and other parties toward the goal of overcoming challenges in community medicine (for details about the Hiroshima Prefecture Community Medicine Regeneration Plan, refer to "Special remarks (2)," p. 58).</p>	
<p>[10] (3) Execution of structured and high-quality pedagogical clinical training and postgraduate clinical training, comprehensive medical care, and training of highly specialized medical professionals capable of leading advanced medicine</p>	III	<p>(Summary of the status of Plan implementation from AY 2010 to AY 2015) Based on the results of a questionnaire survey conducted among the medical interns, HUH analyzed changes in their desired career paths and future intentions, revising the training program and improving their treatment. <u>Also based on survey results, HUH conducted seminars for first- and second-year medical interns at the rate of about twice per month to assist them in achieving their goals in postgraduate clinical training.</u> <u>As a Local Tertiary Radiation Emergency Medical Institution, HUH had its physicians, nurses, radiological technicians, and other personnel participate in overseas training programs and specialized seminars to assist them in developing into professionals fully responsive to the needs of radiation emergency medicine.</u></p>	
		Weighted points – grand total	

II. Special remarks on the qualitative improvement of education, research, and other activities

Hiroshima University Hospital

1. Special remarks

(1) Distinctive activities for the qualitative improvement of education, research, and medical care, the enhancement of characteristics, the reinforcement of local collaboration and social contribution, and operational vitalization, including HUH's unique significance and role, which are different from those of other hospitals

HUH solicited donations under the name of "Hiroshima University Hospital Clinical Grants" to secure financial assistance for basic research that leads to explorative medicine and advanced medical care development so as to support quality clinical research, advanced medicine, and translational research. Moreover, to support female physicians' clinical activities and increase their training opportunities relating to clinical practices, in AY 2010 HUH launched a project to send female physicians overseas for training. To solicit participants in the project, a call was made to female physicians belonging to a medical consultation department and involved in medical care (including postgraduate students), for whose travel expenses (departure within the academic year) were fully or partially covered (up to 300,000 yen per person).

(2) Remarkable activities in response to societal and local needs and important and urgent policy issues

Toward the goal of overcoming challenges in community medicine, HUH promoted the projects described below in collaboration with Hiroshima Prefecture, Hiroshima City, the Medical Associations, and other parties, based on the Hiroshima Prefecture Community Medicine Regeneration Plan:

HUH participated in the operation of the Hiroshima Prefectural Organization for Local Health and Medical Care (established in July 2011) to secure physicians and improve the local medical care environment.

Role-sharing and collaboration mechanisms were established between HUH and four key hospitals in Hiroshima City (Hiroshima Hospital, Hiroshima City Citizens Hospital, Hiroshima Red Cross Hospital & Atomic-bomb Survivors Hospital). This led to the construction of the Hiroshima High-Precision Radiotherapy Cancer Center (HIPRAC), where advanced radiotherapy functions are concentrated, in the Futaba-no-sato district near the northern exit of JR Hiroshima Station (HIPRAC established by Hiroshima Prefecture and operated by the Hiroshima Prefecture Medical Association; operation commenced in October 2015).

A medical service system was established, with HUH's helicopter stationed at Hiroshima Nishi Airport. Its operation began in May 2013, with HUH as the key hospital responsible for helicopter use and Hiroshima Hospital providing personnel support.

HUH established an environment for pediatric emergency care, designating one of the beds at HUH's Advanced Emergency and Critical Care Center as a dedicated bed for pediatric emergency, thus creating a pediatric ICU (PICU), which began operation in AY 2013.

HUH, represented by the Heart Failure Center, formed a local collaboration and support system for heart failure care jointly with the Heart Iki-iki Center, comprising six hospitals situated in Hiroshima Prefecture (Hiroshima City Asa Hospital, Chugoku Rosai Hospital, Agricultural Cooperatives Onomichi General Hospital, Miyoshi Medical Association

Hospital, Fukuyama City Hospital, Agricultural Cooperatives Hiroshima General Hospital).

As a human resource development project related to this network, HUH organized a tour of heart care seminars to reduce the number of recurrences of chronic cardiac insufficiency and improve the general public's quality of life in Hiroshima Prefecture.

To develop a medical care system of public medical institutions serving semi-mountainous areas, HUH participated in a project to promote and support medical services in such areas (AY 2011-2013). This project involved the offer of incentive cash gifts by Hiroshima

Prefecture to HU postgraduate students supporting medical care.

On February 29, 2012, HUH signed an agreement on cooperation in securing physicians engaged in local medical care with Hiroshima Prefecture, the Hiroshima Prefecture Medical Association, the Association of Mayors in Hiroshima Prefecture, the Association of Municipalities in Hiroshima Prefecture, and the Hiroshima Prefectural Organization for Local Health and Medical Care to more effectively carry out activities aimed at ensuring local medical care.

In July 2012, HUH dispatched a surgeon and an internist for secondary emergency care to Higashi-Hiroshima City, suffering from a shortage of physicians, at the request of the Mayor of Higashi-Hiroshima City and the Vice President of the Medical Association of the Higashi-Hiroshima district.

On September 14, 2012, the heads of Hiroshima Prefecture, the Hiroshima Prefecture Medical Association, the Association of Mayors in Hiroshima Prefecture, the Association of Municipalities in Hiroshima Prefecture, the Hiroshima Prefectural Organization for Local Health and Medical Care, the Association of Fire Station Chiefs in Hiroshima Prefecture, and the Hiroshima University Hospital made a joint appeal to the general public, informing them of the organizations' efforts for maintaining local emergency medical care and asking their cooperation in appropriate use of ambulances and visits to local emergency hospitals and clinics at night and on holidays.

(3) Activities and efforts for smoothly operating the Hospital and conducting education, research, and healthcare activities within the context it is placed, including trends in institutional revisions relating to the Hospital and their impact, the Hospital's positioning in the local community, and the role it is expected to play

Within the framework of the project "Revitalization of Education and Research at Medical Schools and University Hospitals and Securing of Healthcare Support Personnel in Local Communities and Isolated Areas," adopted as a recipient of the 2012 MEXT grants for university reform, HUH hired three internists to lighten the physicians' burden, contribute to activating HUH's education and research, and assist medical institutions in local communities and isolated areas in their medical practices.

As a designated prefectural hub hospital for cancer care and a key local hospital for childhood cancer treatment, HUH reorganized its Cancer Treatment Center in a formation comprising three divisions for adult cancer treatment, palliative care, and childhood cancer treatment, as of September 1, 2014, improving and renovating its organization and operational mode while meeting the requirements stipulated in the new guidelines.

To comply with the certification system for clinical research hub hospitals and reinforce the support system in clinical research, HUH reorganized the Clinical Research Division as the Center for Integrated Medical Research as of February 1, 2015.

(4) Responses to conditions surrounding HUH (issues specific to HUH)

As a Local Tertiary Radiation Emergency Medical Institution, HUH participated in projects promoted in collaboration with the regional radiation emergency network (comprising prefectures in which nuclear power plants are located and their adjacent prefectures). HUH also had its physicians, nurses, radiological technicians, and other personnel participate in overseas training programs and specialized seminars to assist them in developing into professionals fully responsive to the needs of radiation emergency medicine.

2. Status of activities from the common perspective of evaluation

(1) Are necessary activities carried out to improve education and research functions, such as quality training for medical professionals and the promotion of clinical studies? (Education and research)

- HUH conducted seminars for first- and second-year medical interns at the rate of about twice per month to assist them in achieving their goals in postgraduate clinical training.
- To promote and reinforce its clinical research, HUH increased the number of clinical research coordinators (CRC) and hired a biostatistician as a lecturer. To comply with the certification system for clinical research hub hospitals based on the Medical Care Act and reinforce the support system in clinical research, HUH reorganized the Clinical Research Division as the Center for Integrated Medical Research as of February 1, 2015, increasing the numbers of instructors, pharmacists, nurses, and other staff members. To reinforce the Center's clinical research promotion system, a dedicated Director (professor) was appointed on February 1, 2016.
- As a Local Tertiary Radiation Emergency Medical Institution, HUH had its physicians, nurses, radiological technicians, and other personnel participate in overseas training programs and specialized seminars to assist them in developing into professionals fully responsive to the needs of radiation emergency medicine.

(2) Are necessary activities carried out to provide high-quality medical care as a university hospital? (Medical care)

- To reinforce its collaboration with the local medical community and promote role sharing, HUH expanded its network of collaborative medical institutions in connection with the introduction of collaborative clinical pathways for cancer treatment. As a result, clinical pathways were formed involving 37 hospitals and 59 clinics for breast cancer, 63 hospitals and 167 clinics for stomach cancer, 63 hospitals and 166 clinics for colon cancer, 78 hospitals and 203 clinics for liver cancer, 58 hospitals and 167 clinics for lung cancer, and 59 hospitals and 190 clinics for prostate cancer.
- In April 2010, the Oral Implant Center was established. In July 2010, the Department of Infectious Diseases was established, and professors were assigned to the new department and the Department of Rehabilitation Medicine to improve medical services. Also in July 2010, associate professors were assigned to the Department of Tests as dedicated physicians to improve its structure.
- Professors were assigned to the Departments of Pathological Diagnosis, Plastic Surgery, and Nephrology in April 2011 and to the Division of Special Dental Treatment in June 2011, to improve medical services. In January 2012, the Heart Failure Center was established to construct a local collaboration and support system for the treatment of heart failure.
- To improve the inpatient environment in the Kita (north) ward (40 beds, dentistry) and realize more effective use of hospital beds, the Kita ward was relocated to the eastern side of the

inpatient ward on the second floor, and its renovation was undertaken (relocation and renovation completed in September 2011). Inter-departmental bed use was thus promoted.

- The new consultation ward, when it was completed, took over the space used as an outpatient parking area for 85 vehicles. To maintain HUH's current parking capacity and continue to increase parking spaces so as resolve the problem of chronic parking space shortages, HUH and Hiroshima City effectuated a transfer by partial exchange between the site currently leased by the municipal government as a parking lot (1,840.97 m²; capacity: 76 vehicles) and a site owned by HU, and the purchase of the lot remaining after the exchange in March 2012.
- In April 2012, the Department of Internal Oncology was renamed the Department of Radiation Oncology, and professors were assigned to the Department to improve its structure.
- HUH was the first in Hiroshima Prefecture among the cancer care hub hospitals designated by the national government (Ministry of Health, Labor and Welfare) and the prefectural government (16 in total: 11 hospitals designated by MHLW and 5 hospitals designated by Hiroshima Prefecture) to introduce a positive emission tomography-computed tomography (PET-CT) system, highly useful for early cancer detection, in May 2012. This contributed to HUH's functional improvement.
- On February 8, 2013, HUH was designated by the Ministry of Health, Labor and Welfare as a "key local hospital for childhood cancer treatment," the only hospital to be so designated in the Chugoku-Shikoku area.
- To respond to future medical care needs, HUH's new consultation ward was built (completed in April 2013, operation commenced in September 2013). The new consultation ward was constructed based on the vision that it would be a patient- and user-friendly facility, a facility capable of providing highly advanced medical care and supporting improvement in clinical education, and a medical center at times of disaster with ensured disaster reduction capabilities. The new ward embodies its basic design concept of "Green Hospital" with its "greening technology" (fusion of the effective use of natural energy, architectural ingenuities, and the latest equipment for a sustainable hospital), "green garden" (richly green and soothing space that is gentle on and blends with the surrounding natural environment), and "green art" (artwork reminiscent of plants, creating a space that enhances patients' self-healing power). At the same time, the completion of the new consultation ward brought about functional improvements in medical services: the outpatient consultation sections of the general medical and dental departments were integrated, the number of operating rooms was increased (from 13 to 17), the number of beds for patients receiving chemotherapy was increased (from 14 to 28), and a new dedicated post-operative surgical intensive care unit (SICU, six beds) was opened. Furthermore, following the opening of the Center for Future Medicine, which engages in cell therapy and regenerative medicine, and the Center for Sports Medicine, which takes advantage of HUH's geographical location near the homes of professional baseball and football teams, both within the consultation ward, a system was put in place to promote explorative medicine and provide advanced medical services, directly linking research achievements with medical practices.
- Renovation work was undertaken (completed in August 2014) to link the anteroom attached to operating room OR 11 with the anteroom attached to operating room OR 12 on the fourth floor of the consultation ward, to provide obstacle-free access during the transportation of an extracted organ for an organ transplant operation.
- As a key local hospital for childhood cancer treatment, HUH purchased a plot of land near the Kasumi Campus from Hiroshima City and built a long-term residential facility, Hiroshima University Hospital Family House (a five-story reinforced concrete structure; total floor area: 528 m²; 12 rooms), where patients can receive medical care while living with their family in a home-like setting (completed in March 2015, operation commenced in May 2015).

- To promote role sharing among the physicians, paramedical staff, and clerical staff, HUH hired three medical clerks (who assist physicians in clerical duties) in April 2015 and an additional two in June 2015, bringing the total number to seven.
 - In July 2015, HUH established the IBD Center to provide inflammatory bowel disease (IBD) patients with the most advanced treatment and multi-disciplinary therapy so as to enhance their quality of life (QOL). In August 2015, the Herbal Medicine Center was established to promote advanced herbal medicine for patients who need alternative medicine.
 - On November 20, 2015, HUH was designated as a base institution for epilepsy treatment in Hiroshima Prefecture within the framework of the Ministry of Health, Labor and Welfare's project for the development of a collaboration system for community treatment of epilepsy.
 - As a medical institution designated for the treatment of Type-I contagious diseases, HUH carried out renovation work (completed in January 2016) of the rooms for contagious disease patients on the third floor of the inpatient ward, reinforcing the hospital's reception of patients.
- (3) Are necessary activities carried out to ensure sustainable and stable hospital administration? (Administration)**
- To lessen the physicians' burden and improve their working conditions, HUH newly created the post of Deputy Director in charge of workplace environment improvement.
 - HUH used the Hospital Management Accounting System (HOMAS) for national university hospitals and a hospital administration support system, Medical Code (MC), to calculate monthly costs classified by departments and units and conducted a factor analysis of departments with significant differences in monthly revenues from medical services between the current and previous years. Based on cost analysis, HUH considered and then implemented equipment upgrading of the Department of Hematology to meet the facility requirement for the validation of certain points for medical fees so as to improve the Department's low profitability. In January 2014, the Department began the addition of points for "sterilized room management 2" and increased revenues.
 - Using MC, HUH analyzed the patients hospitalized in AY 2014 in terms of the ten most frequent diagnostic categories in the respective departments following the MDC6 classification and income and expenditure balances by DPC. Analysis results were then compiled in documents, including bubble charts indicating income, expenditure, and profit, and distributed to the respective consultation departments with commentaries.
 - Using the DPC analysis benchmark system EVE, HUH calculated monthly and by-department revenues for medical acts for patients discharged with Diagnosis Procedure Combination (DPC)/Per-Diem Payment System (PDPS) claims and points for medical acts as proposed by the Japanese Health Insurance Federation for Surgery. HUH also analyzed data on discharged patients to whom the DPC/PDPS were applied for medical fee assessment, in terms of the most frequently occurring DPC diagnostic categories in the respective departments, the numbers of days of hospitalization as compared to the national averages, and the distribution of differences from average output values. Analysis results were compiled in documents, including bubble charts, and distributed to the respective consultation departments with commentaries.
- Using the medical data warehouse (DWH) for consultations and clerical duties, HUH examined the possibility of conformity to the facility standards for which registration had not been completed. Having met the requirements for registration, HUH newly registered the technique of percutaneous aortic valve replacement (calculation began on October 1, 2015). HUH carried out surveys and analysis on medical fees, examining the cost performance of the facility standards relating to the calculation of medical fees, and prepared documents for planning and implementing management improvement measures.
 - HUH examined the surgeries performed in the operation rooms in the last three years, calculating the number of surgeries whose unit price (technical fee) was 5,000 points (50,000 yen) or more and the total fees earned from them by subtracting the medication and material costs from the medical fees claimed (surgery prices). It was confirmed that the price per surgery had tended to increase due to an inclination toward surgeries of great difficulty.
 - To reduce running costs relating to medical equipment, HUH reviewed commissioned maintenance services. For IVR-CT, cost estimates for partial repairs expected to be required in the future were checked against the contents of several maintenance contracts, and the long-term maintenance contract found most economically advantageous was signed. With regard to medical devices for which the term of lease was about to expire, considering their current status of use, anticipated future use, the remainder of the maintenance contract, and other factors, HUH changed the mode of more than 10 contracts, switching from lease to purchase for some medical devices expected to be in long-term use.
 - For the replacement of X-ray tubes for CT planning for radiation therapy, HUH decided to sign a spot contract for the replacement, concluding that the advantages of a maintenance agreement would be limited, considering the use of CT, use frequency, and profitability.
 - In response to the large-scale landslide that occurred in the northern part of Hiroshima City on August 20, 2014, HUH sent a total of 11 members of the Disaster Medical Assistance Team (DMAT), a total of 15 nurses, 2 members of the Disaster Psychiatric Assistance Team (DPAT), and 1 hospital staff member working with Hiroshima Prefecture's public health team. HUH also sent personnel (20 in total) to conduct deep vein thrombosis (DVT) screening at the evacuation station in collaboration with teams mainly from Niigata University and Fukui University. In November 2014, HUH held DMAT review meetings on the disaster with prefectural offices, fire departments, and disaster base hospitals in Hiroshima, Yamaguchi, and Shimane Prefectures.

II. Qualitative improvement of education, research, and other activities
 (3) Other goals
 <5> Goals relating to the Attached Schools

Mid-Term Goals	Development in collaboration with HU of elementary and secondary educational curricula for the cultivation of future regional, national, and international leaders
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Mid-Term Plan	Status of Progress	Reasons for evaluation results (status of Plan implementation and other factors)	Weighted points
<p>[11] [Measures for achieving the goals relating to the Attached Schools] Development in collaboration with HU of elementary and secondary educational curricula for the cultivation of future regional, national, and international leaders</p>	<p>III</p>	<p>(Summary of the status of Plan implementation from AY 2010 to AY 2015) In AY 2010, in collaboration with the Graduate School of Education, a survey team representing the Attached Schools visited universities and teacher training schools in the United States, Finland, and Singapore, to investigate progressive educational practices and research into educational practices there. The team's findings were compiled in a report. Attached School teachers continued to be sent to schools in and outside Japan practicing pioneering educational methods, for information gathering and in preparation for global human resource development at the Attached Schools. In AY 2012, an Attached Schools research promotion committee was established to reinforce the functions of the Attached Schools and promote the Mid-Term Plan, launching the development of elementary and secondary educational curricula for the cultivation of qualities and competences required of globally operational human resources and a student teacher training system guaranteeing the quality of teachers. From AY 2013 and AY 2014, curricula were developed and put to practice on a trial basis, and results were compiled in a report. Meanwhile, teachers from the Attached Schools were sent to schools in and outside Japan known for their pioneering educational practices to collect information. <u>In AY 2015, the curricula were completed and presented at the Fifth Joint Research Forum for the Hiroshima University Attached Schools.</u> <u>The project was summarized in a research report and distributed to the Attached School teachers.</u></p>	
		Weighted points – grand total	

Attached Schools

1. Special remarks

To achieve the Second Mid-Term Plan goals relating to the Attached Schools, elementary and secondary educational curricula and a student teacher training system were developed in collaboration with HU for the cultivation of qualities and competences required of globally operational human resources.

2. Status of activities from the common perspective of evaluation

(1) Educational challenges

Are experimental and leading activities carried out with regard to educational challenges facing actual schools? Are the results of research and development concerning various educational challenges publicly presented so that the Attached Schools may serve as leading or model schools in the local community?

To be national and regional centers of research and development in the domain of school education, HU's Attached Schools serve as platforms for education research and teacher training conducted from a global perspective for pupils and students in different developmental stages, making full use of the Schools' strength of being a group comprising all school types from kindergarten to senior high school. Applications have been made to have the Attached Schools designated as research and development schools. The results of research and development are presented at the Joint Research Forum for the Hiroshima University Attached Schools, at education research conventions held at the Attached Schools, and in research journals.

(2) Collaboration with HU and its faculties

Are there consultative organizations jointly established with HU and/or its faculties that work in connection with the operation of the Attached Schools?

To improve the quality of education and research at the Attached Schools, the Hiroshima University Attached School Evaluation Committee was established with HU academic faculty members and external specialists as members. The Committee examines activities at the Attached Schools, presents evaluation results to them, and makes proposals and offers advice.

<1> Cooperation in research at HU and its faculties

Is a system established for organizational cooperation in research into education at HU and its faculties? Does cooperation actually take place?

Rules are established between HU and the Attached Schools for handling requests for cooperation in education research. The Attached Schools respond to HU's requests for observing the behaviors of children, pupils, and students, conducting questionnaire surveys with them, and using various data sets kept by the Attached Schools.

Do HU/faculties and the Attached Schools work together to plan and implement a concrete research plan, making use of the Attached Schools?

To promote research into education in collaboration with HU, a "research project" program is organized in which HU academic faculty members and Attached School teachers engage in joint research. Every year, a call is made for research project proposals from all the HU educational establishments. Research projects are carried out following the screening and adoption of proposals.

<2> Teacher training

Do the Attached Schools actively accept student teachers to offer quality practice teaching?

The Attached Schools organize practice teaching founded on the crisscrossing of theory and practice for undergraduates from the Faculty of Education and in other certified courses. The Attached Schools accept students from the Department of Health Sciences and the Department of Oral Health Science for their practice teaching in special needs classes. The Attached Schools also accept graduate school students and active teachers as practice teachers every year as part of "action research" practical training in the Program for Teaching Profession Advancement, established in the Graduate School of Education in AY 2009.

Do the teacher training plans of HU and its faculties make full use of the Attached Schools? (Is organic linkage being considered between the Attached Schools and public schools in teacher training?)

Graduate students (including active teachers) in the Program for Teaching Profession Advancement undergo practice teaching during the first year at Attached Schools as part of "Action Research Practical Training I, II" in consultation and collaboration with HU. In the second year, based on their experience in the first year and the action research practical training, they engage in problem-solving practice at partner schools (public schools) in consultation with the Prefectural and Municipal Board of Education.

Are there appropriate organizational systems for cooperation with HU and its faculties for teacher training?

The Teacher Training Council meets twice a year. In April, the contents of teacher training are mainly discussed, based on close communication with the schools where practice teaching takes place. In December, the results of practice teaching are reported, and measures for improvement are discussed.

Are the Attached Schools that are remotely located from HU/faculties disadvantaged in practice teaching?

Some such Attached Schools have residential facilities, and this makes the practice teaching program something like a training camp. This is useful for future student guidance. Since student teachers assigned to the Attached Schools without residential facilities stay at a nearby hotel, there is an undeniable burden on the student teachers. Burden on HU's academic faculty members in charge of teacher training can be a major obstacle.

(3) Review of the roles and functions of the Attached Schools

Are the nature of the Attached Schools and their improvement and review given sufficient attention, in consideration of their missions and roles?

In AY 2013, concerning the Attached Kindergarten and Attached Mihara Kindergarten, their enrollment capacities for admission in April 2015 were reduced to an adequate size. Elementary and secondary educational curricula for the cultivation of globally operational human resources and a teacher training system were developed in collaboration with HU, and their results were presented at the Fifth Joint Research Forum for the Hiroshima University Attached Schools, held for regional-level information dissemination.

III. Budget (including estimates for personnel expenses), earnings and expenses plan, and funding plan

* Refer to the financial statements and accounting report.

IV. Upper limits of short-term borrowings

Mid-Term Plan	Annual Plan	Results
<p>1. Upper limit of short-term borrowings: 6.8 billion yen</p> <p>2. Reasons Borrowings are anticipated to obtain emergency funds necessitated by the delayed receipt of subsidies for administrative expenses and other eventualities.</p>	<p>1. Upper limit of short-term borrowings: 6.8 billion yen</p> <p>2. Reasons Borrowings are anticipated to obtain emergency funds necessitated by the delayed receipt of subsidies for administrative expenses and other eventualities.</p>	None

V. Plans for transferring or putting up as collateral important assets

Mid-Term Plan	Annual Plan	Results
<p>(1) Hiroshima University's plot and buildings on the Kasumi Campus will be put up as collateral for the long-term loan that covers the expenses for new building construction, renovation and other construction work, and the installation of special medical machinery at the Hospital.</p> <p>(2) A part of the University's plot on Higashi Senda Estate (1-1-56, Higashi Senda-cho, Naka-ku, Hiroshima City, Hiroshima Prefecture; 2,844 m²) will be transferred.</p> <p>(3) The University's plots on Okimi Estate (2153-7 and 8, Kamada, Okadaio, Okimi-cho, Edajima City, Hiroshima Prefecture; 4,052.53 m²) will be transferred.</p> <p>(4) A part of the University's plot on Amazuyama Estate (4-226-12, Ushita Shinmachi, Higashi-ku, Hiroshima City; 110 m²) will be transferred.</p>	<p>A part of the University's plot on Amazuyama Estate (4-226-12, Ushita Shinmachi, Higashi-ku, Hiroshima City; 110 m²) will be transferred.</p>	Transfers will be carried out in AY 2016 due to circumstances surrounding the transferees.

VI. Surplus appropriation

Mid-Term Plan	Annual Plan	Results
Surplus earnings retained at the closing of accounts will be appropriated to enhance the quality of the University's education and research and to improve the University's organizational administration.	Surplus earnings retained at the closing of accounts will be appropriated to enhance the quality of the University's education and research and to improve the University's organizational administration.	Of the surplus earnings retained at the closing of accounts in AY 2011, to be appropriated to enhance the quality of the University's education and research and to improve the University's organizational administration, 49,390,230 yen was spent in AY 2015 to improve the medical consultation environment.

VII. Others 1. Facility and equipment plans

Mid-Term Plan			Annual Plan			Results		
Facility/equipment	Estimated amount (in millions of yen)	Funding	Facility/equipment	Estimated amount (in millions of yen)	Funding	Facility/equipment	Estimated amount (in millions of yen)	Funding
(Hospital) Consultation ward renovation (Hospital) Inpatient ward renovation New high-intensity circularly polarized light generator Small-scale renovation	Total 18,044	Facility development aid (1,890) Long-term loan (15,614) Center for National University Finance and Management subsidy for facility development (540)	(Kasumi) General research building renovation III (clinical) (Kasumi) Lecture building renovation (Higashi-Hiroshima) Anti-seismic renovation of the auditorium (Midori: Attached High School) Indoor sports ground renovation Development of a model animal center for new genome-era research; education and research facility/equipment development for the establishment of a world-class research center Small-scale renovation	Total 1,477	Facility development aid (1,367) Long-term loan (880) Center for National University Finance and Management subsidy for facility development (110)	(Kasumi) General research building renovation III (clinical) (Kasumi) Lecture building renovation (Higashi-Hiroshima) Anti-seismic renovation of the auditorium (Midori: Attached High School) Indoor sports ground renovation Development of a model animal center for new genome-era research; education and research facility/equipment development for the establishment of a world-class research center Small-scale renovation	Total 1,477	Facility development aid (1,367) Center for National University Finance and Management subsidy for facility development (110)
<p>(NB 1) The monetary amounts are estimates. Other items of facility and equipment development in consideration of the status of implementation of operations necessary to achieve the goals of the Mid-Term Plan, and other items of facility and equipment renovation and renewal in consideration of their deterioration, may be added.</p> <p>(NB 2) The expense for small-scale renovation in and after 2010 is set at the same amount as in 2009. The specific amounts are finalized in each year's budgeting process, since fluctuations are anticipated in the amounts of facility development aid, Center for National University Finance and Management subsidies, and long-term loans, depending on the progress of related projects and other factors.</p>			<p>(NB) The monetary amounts are estimates. Other items of facility and equipment development in consideration of the status of implementation of operations, and other items of facility and equipment renovation and renewal in consideration of their deterioration, may be added.</p>					

<p><2> The percentage of female academic faculty members will be raised to about 14%, while the percentage of women in managerial posts will also be increased.</p> <p>(4) Reduction of personnel expenses In compliance with the Act on Promotion of Administrative Reform for Realization of Small and Efficient Government (Act No. 47 of 2006), reform will be pursued with regard to government employees so as to reduce personnel expenses by at least 5% in the five-year period from AY 2010. Furthermore, based on the 2006 Basic Policy for Economic and Fiscal Management and Structural Reform (adopted by the Diet on July 7, 2006), reform concerning government employees and personnel expenses will be continued until AY 2011.</p> <p>(Reference) Estimated total personnel expenses during the Mid-Term Plan period: 202,323 million yen (excluding retirement allowances)</p>	<p><2> The percentage of female academic faculty members will be increased from that of the previous year, while the percentage of women in managerial posts will also be increased from the previous year in accordance with the “Action Goals, Action Plans, and Action Items for Gender Equality.”</p> <p>(4) Reduction of personnel expenses (Terminated in AY 2011 and not pursued in AY 2015)</p> <p>(Reference 1) The number of full-time faculty members AY 2015: 2,509 Estimated number of limited-term faculty members: 520</p> <p>(Reference 2) Estimated total personnel expenses in AY 2015: 35,134 million yen (excluding retirement allowances)</p>	<p>Refer to “(3) <2> Measures for Achieving the Operational Improvement and Efficiency Enhancement Goals,” p.29 and p.32.</p>
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Faculty and Graduate School Departments	Enrollment capacity	Actual enrollment	Enrollment rate
[Bachelor's courses]	(a) (students)	(b) (students)	(b)/(a) X100 (%)
Faculty of Integrated Arts and Sciences, School of Integrated Arts and Sciences	520	589	113
Faculty of Letters, School of Humanities	580	641	110
Faculty of Education			
Cluster 1 (School Education)	720	761	105
Cluster 2 (Science, Technology and Social Studies Education)	352	388	110
Cluster 3 (Language and Culture Education)	336	359	106
Cluster 4 (Lifelong Activities Education)	352	389	110
Cluster 5 (Fundamentals for Education and Human Development)	220	243	110
Total	1,980	2,140	108
Faculty of Law, School of Law			
Day course	580	615	106
Evening course	180	219	121
Total	760	834	109
Faculty of Economics, School of Economics			
Day course	620	669	107
Evening course	260	283	108
Total	880	952	108
Faculty of Science			
School of Mathematics	188	224	119
School of Physical Science	264	309	117
School of Chemistry	236	270	114
School of Biological Science	136	150	110
School of Earth and Planetary Systems Science	96	109	113
Third-year transfer	20	16	80
Total	940	1,078	114
Faculty of Medicine			
School of Medicine	711	733	103
School of Health Sciences	500	518	103
Total	1,211	1,251	103
Faculty of Dentistry			
School of Dentistry	320	326	101
School of Oral Health Science	160	173	108
Total	480	499	103
Faculty of Pharmaceutical Sciences			
School of Pharmaceutical Sciences	228	231	101
School of Medicinal Sciences	88	92	104
Total	316	323	102

Faculty and Graduate School Departments	Enrollment capacity	Actual enrollment	Enrollment rate
	(a) (students)	(b) (students)	(b)/(a) X100 (%)
Faculty of Engineering			
Cluster 1 (Mechanical System Engineering)			
Cluster 2 (Electrical, Electronic, System and Information Engineering)			
Cluster 3 (Chemistry, Biotechnology and Process Engineering)			
Cluster 4 (Social and Environmental Engineering)			
Third-year transfer			
Total			
1.239 Tw[To]-76.7(t)f1)-8147.871,J9.2(9800 Tc(2.239 Tw[137 TD-.003 Tc.03 Tc(1)-8.6(01)JJTf1)-8347.871800 Tc()TjT(6(01)].003 Tc.0n)-4			

Faculty and Graduate School Departments	Enrollment capacity	Actual enrollment	Enrollment rate
	(a)	(b)	(b)/(a) X100
	(students)	(students)	(%)
Graduate School of Advanced Science of Matter			
Program in Quantum Matter	50	53	106
Program in Molecular Biotechnology	48	66	137
Program in Semiconductor Electronics and Integration Science	30	42	140
Total	128	161	125
Graduate School of Health Sciences Health Sciences Major	(NB)	1	
Graduate School of Biomedical and Health Sciences			
Oral Health Sciences Major	24	20	83
Medicinal Sciences Major	36	40	111
Health Sciences Major	68	64	94
Medical and Dental Sciences Major	24	23	95
Total	152	147	96
Graduate School of Engineering			
Program in Mechanical Systems Engineering	56	81	144
Program in Mechanical Science and Engineering	60	83	138
Program in Systems Cybernetics	68	95	139
Program in Information Engineering	74	83	112
Program in Chemical Engineering	48	67	139
Program in Applied Chemistry	52	65	125
Program in Civil and Environmental Engineering	40	45	112
Program in Transportation and Environmental Systems	40	57	142
Program in Architecture	42	58	138
Total	480	634	132
Graduate School of Biosphere Science			
Program in Bioresource Science	60	67	111
Program in Biofunctional Science and Technology	48	85	177
Program in Environmental Dynamics and Management	38	39	102
Total	146	191	130
Graduate School of Biomedical Sciences	(NB)	2	
Dentistry and Pharmacology, Program in Dental Sciences		2	
Total		2	
Graduate School for International Development and Cooperation			
Program in Development Science	86	134	155
Program in Educational Development and Cultural and Regional Studies	56	61	108
Total	142	195	137
Total master's courses	2,034	2,498	122

Faculty and Graduate School Departments	Enrollment capacity	Actual enrollment	Enrollment rate
	(a)	(b)	(b)/(a) X100
	(students)	(students)	(%)
[Doctoral courses]			
Graduate School of Integrated Arts and Sciences, Program in Integrated Arts and Sciences	60	104	173
Graduate School of Letters, Program in Humanities	96	80	83
Graduate School of Education			
Program in Learning and Curriculum Development	27	32	118
Program in Arts and Science Education	66	126	190
Program in Education and Human Science	54	75	138
Total	147	233	158
Graduate School of Social Sciences			
Program in Law and Politics	15	17	113
Program in Economics	24	10	41
Program in Management Studies	42	52	123
Total	81	79	97
Graduate School of Science			
Program in Mathematics	33	13	39
Program in Physical Science	39	24	61
Program in Chemistry	33	23	69
Program in Biological Science	36	16	44
Program in Earth and Planetary Systems Science	15	13	86
Program in Mathematical and Life Sciences	33	16	48
Total	189	105	55
Graduate School of Advanced Science of Matter			
Program in Quantum Matter	36	26	72
Program in Molecular Biotechnology	33	21	63
Program in Semiconductor Electronics and Integration Science	21	19	90
Total	90	66	73
Graduate School of Health Sciences, Health Sciences Major	(NB)	36	
Graduate School of Biomedical and Health Sciences			
Biomedical Sciences Major	388	447	115
Oral Health Sciences Major	12	3	25
Medicinal Sciences Major	9	14	155
Health Sciences Major	45	77	171
Total	454	541	119
Graduate School of Engineering			
Program in Mechanical Systems Engineering	27	19	70
Program in Mechanical Science and Engineering	30	21	70
Program in Systems Cybernetics	33	27	81
Program in Information Engineering	39	24	61
Program in Chemical Engineering	24	24	100
Program in Applied Chemistry	27	7	25

Faculty and Graduate School Departments	Enrollment capacity	Actual enrollment	Enrollment rate
	(a) (students)	(b) (students)	(b)/(a) X100 (%)
Graduate School of Engineering			
Program in Civil and Environmental Engineering	21	15	71
Program in Transportation and Environmental Systems	21	18	85
Program in Architecture	21	7	33
Program in Social and Environmental Engineering	(NB)	2	
Total	243	164	67
Graduate School of Biosphere Science			
Program in Bioresource Science	36	47	130
Program in Biofunctional Science and Technology	36	22	61
Program in Environmental Dynamics and Management	27	19	70
Total	99	88	88
Graduate School of Medicine, Dentistry and Pharmacology	(NB)	86	
Programs for Biomedical Research	(NB)	70	
Programs for Applied Biomedicine	(NB)	1	
Programs for Pharmaceutical Sciences	(NB)	2	
Oral Health Sciences Major		159	
Total			
Graduate School for International Development and Cooperation			
Program in Development Science	66	35	53
Program in Educational Development and Cultural and Regional Studies	42	39	92
Total	108	74	68
Total doctoral courses	1,567	1,729	110
[Professional degree courses]			
Law School, Program in Law	132	74	56
Total professional degree courses	132	74	56
[Advanced Courses]			
Special Course of Special Support Education	30	17	56
Total advanced courses	30	17	56

Faculty and Graduate School Departments	Enrollment capacity	Actual enrollment	Enrollment rate
	(a) (students)	(b) (students)	(b)/(a) X100 (%)
[Attached Schools]			
Attached Elementary School	416	407	97
Number of classes 12			
Attached Shinonome Elementary School	488	468	95
Number of classes 18			
Attached Mihara Elementary School	416	404	97
Number of classes 12			
Attached Junior High School	360	370	102
Number of classes 9			
Attached Shinonome Junior High School	264	255	96
Number of classes 9			
Attached Mihara Junior High School	240	239	99
Number of classes 6			
Attached Fukuyama Junior High School	360	366	101
Number of classes 9			
Attached Senior High School	600	606	101
Number of classes 15			
Attached Fukuyama Senior High School	600	605	100
Number of classes 15			
Attached Kindergarten	85	86	101
Number of classes 3			
Attached Mihara Kindergarten	120	96	80
Number of classes 4			
Total attached schools	3,949	3,902	98

(NB) Enrollment figures are not provided for the programs and courses for which the admission of students has been discontinued due to reorganization or other reasons.

Status of plan implementation

(1) Status of implementation of the plan concerning enrollment (as of May 1)

The enrollment rate of the bachelor's courses as a whole is 109%, which is considered appropriate. The enrollment rate of the master's courses as a whole is 122%, which is considered appropriate. The enrollment rate of the doctoral courses as a whole is 110%, which is considered appropriate. The enrollment rate of the professional degree course is 56%, well below the enrollment capacity. The enrollment rate of the advanced course is 56%, well below the enrollment capacity.

(2) Main reasons for short enrollment (enrollment rate below 90%) (Law School, Program in Law)

(Reasons)

The enrollment of only 21 students in the previous academic year resulted in a 20% cut in the School's enrollment capacity. However, the enrollment rate dropped considerably, with an actual number of new entrants of only 13. This is due to a decrease in the number of applicants by about 50% from the previous year, resulting in a small number of entrance examination candidates of 47, followed by 12 of the 25 successful candidates declining admission to the School.

(Remedial measures)

To attract more applicants and entrance examination candidates, it is essential to improve the success rate of the School's students in the state bar examination. To this end, efforts are being made to improve the educational methods, including the introduction of a comprehensive educational program in the previous academic year focusing more on coaching-type instruction. As a result, the students' bar exam success rate this year improved by about 5.4 points. The same efforts will be continued in the future. Moreover, to prevent successful entrance examination candidates from declining admission to the School, all possible measures have been put in place, including pre-admission guidance for successful candidates, the offer of correspondence courses for them in major subjects, and individual interviews with them immediately following the announcement of

○ Appendix 2 (Excess enrollment at undergraduate and graduate levels)

(Academic year 2010)

Faculty, Graduate School, etc.	Enrollment capacity (A)	Actual enrollment (B)	Including							Number of enrolled students considered for excess enrollment (J) [(B) - (D+E+F+G+I)]	Excess enrollment rate (K) [(J)/(A) x 100]
			International students (C)	Including			Number of students on leave of absence (G)	Number of students retained for not fulfilling requirements for graduation (H)	Including those whose total period of enrollment exceeds the standard period of enrollment by no more than two years (I)		
				International students on Japanese government scholarships (D)	International students on International government scholarships (E)	International students on inter-university exchange programs (F)					
(Faculties)	(students)	(students)	(students)	(students)	(students)	(students)	(students)	(students)	(students)	(%)	
Faculty of Integrated Arts and Sciences	520	578					13	34	28	537	103.3%
Faculty of Letters	580	628	2				18	25	20	590	101.7%
Faculty of Education	1,980	2,164					28	59	46	2,090	105.6%
Faculty of Law	760	871	11	1			29	62	50	791	104.1%
Faculty of Economics	880	987	8	1	2		33	70	62	889	101.0%
Faculty of Science	940	1,060	2	1	1		16	67	51	991	105.4%
Faculty of Medicine	1,147	1,187	1				5	31	25	1,157	100.9%
Faculty of Dentistry	515	522	1				8	15	15	499	96.9%
Faculty of Pharmaceutical Sciences	278	282	1	1			1	1	1	279	100.4%
Faculty of Engineering	1,980	2,257	35	6	26		23	124	120	2,082	105.2%
Faculty of Applied Biological Science	380	433	2	1			4	5	5	423	111.3%
(Graduate Schools)	(students)	(students)	(students)	(students)	(students)	(students)	(students)	(students)	(students)	(students)	(%)
Graduate School of Integrated Arts and Sciences	180	257	70	5			25	51	46	181	100.6%
Graduate School of Letters	224	261	73	5			45	76	51	160	71.4%
Graduate School of Education	461	615	90	22			38	85	74	481	104.3%
Graduate School of Social Sciences	241	300	99	2			39	102	48	211	87.6%
Graduate School of Science	453	419	18	8			9	29	26	376	83.0%
Graduate School of Advanced Science of Matter	218	269	15	5	3		9	19	16	236	108.3%
Graduate School of Health Sciences	119	189	7	3			23	62	44	119	100.0%
Graduate School of Engineering	654	759	113	39			22	37	26	672	102.8%
Graduate School of Biosphere Science	245	284	49	20			14	29	17	233	95.1%
Graduate School of Biomedical and Health Sciences	575	704	50	27	5		58	124	76	538	93.6%
Graduate School for International Development and Cooperation	250	300	192	55	1		15	28	24	205	82.0%
Law School	168	175					31	33	27	117	69.6%

Graduate School of Biomedical and Health Sciences	50	553	45	12	2	17	6	6	516	101.4%
Graduate School of Biomedical and Health Sciences	10	254	16	4	4	58	125	68	120	116.5%
Graduate School of Engineering	72	797	123	20	12	19	40	29	717	99.2%
Graduate School of Biosphere Science	24	245	43	10	9	12	25	18	196	80.0%
Graduate School for International Development and Cooperation	25	255	170	26	21	9	21	17	182	72.8%
Law School	14	90				19	26	22	49	34.0%

