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Report on Survey on International Hub

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International Affairs Department

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Japan Atomic Energy Agency

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Japan Atomic Energy Agency (JAEA) is promoting initiative to form an international hub in line with its aim to accept more researchers/engineers from all over the world. Establishment of "the Committee for JAEA Internationalization Initiative" was planned in 2010 so as to intensify this initiative, and in February, 2010, we visited research institutions in Europe, which include European Organization for Nuclear Research (CERN), the construction site of ITER in Cadarache, and Rutherford Appleton Laboratory (RAL), with the intention to survey and learn their advanced activities and systems in regard to the International Hub, so that the committee will be able to make fruitful discussion.

This report describes strategy taken in each institution for an International Hub, and the state of each institution regarding acceptance and management of overseas researchers and engineers, research environment, living environment/health and welfare, and PR activities/coexistence with the local community.

Keywords: International, Hub, Internationalization

国際拠点化に係る調査報告書

日本原子力研究開発機構国際部
海老澤　宏文、星野　淳子、橋本　和一郎、岡田　漱平

（2011 年 3 月 30 日受理）

日本原子力研究開発機構では、世界各国からの研究者・技術者等の受入の拡大等を目指すべく国際拠点化を推進している。平成 22 年度から、国際拠点化をさらに推進するべく「国際拠点化推進委員会」の設置を予定しているが、同委員会における審議検討を実り多いものとするため、海外の研究機関の先進的な国際拠点化の取組状況を把握すべく、平成 22 年 2 月に欧州調査を実施した。調査対象は、CERN（欧州原子核研究機構）、カダラッシュ ITER 建設サイト、ラザフォード・アップルトン研究所（RAL）である。

本報告書は、それぞれの施設における国際拠点化戦略、研究者・技術者等の受入れ及び管理、研究環境、居住環境・福利厚生、広報活動・地域との共生、に関して取りまとめたものである。

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Japan Atomic Energy Agency (JAEA) is promoting initiative to form an International Hub in line with its aim to accept more researchers/engineers from all over the world. Establishment of "the Committee for JAEA Internationalization Initiative" was planned in 2010 so as to intensify this initiative, and in February, 2010, we visited research institutions in Europe, which include European Organization for Nuclear Research (CERN), the construction site of ITER in Cadarache, and Rutherford Appleton Laboratory (RAL), with the intention to survey and learn their advanced activities and systems in regard to the International Hub, so that the committee will be able to make fruitful discussion.

This report describes strategy taken in each institution for an International Hub, and the state of each institution regarding acceptance and management of overseas researchers and engineers, research environment, living environment/health and welfare, and PR activities/coexistence with the local community.

Survey method

To investigate the status of each facility as an International Hub, we created a chart of items to be investigated in advance by reviewing it with the investigators and the international department, so we could conduct the investigation efficiently within the limited visit time. By interviewing the responsible people at the site and following up after the on-site investigation, we summarized these items. In regard to international hub, there are parts that have not all been noted within the text of the report, as its scope covers a broad range such as strategy, environmental enhancement, public relation activity, etc. We would like you to read this text by referring to the chart of items to be investigated from time to time.

At the end of this report, we have also included some pictures which were taken during the investigation, so please refer to them as well.

Appendix 1: List of Survey Items (CERN)
Appendix 2: List of Survey Items (ITER)
Appendix 3: List of Survey Items (RAL)

1. CERN (European Organization for Nuclear Research)

CERN (Conseil Européen pour la Recherche Nucléaire, English name: European Organization for Nuclear Research) was established in 1954 as an international research organization consisting of 12 European countries. CERN is situated in the suburb of Geneva, on the border of Switzerland and France, and its purpose is to explore the laws governing elementary particles and their phenomena using a large-scale hadron accelerator (Large Hadron Collider, LHC), etc. The numbers of high energy physics researchers, etc. from all over the world who use CERN exceed a cumulative total of 9,000 persons per year, and many Japanese researchers from universities and research institutions (KEK), etc. are also participating through international cooperation.

There are 2,544 full-time CERN employees as of 2007, and most of them have been employed from CERN Member States. Thirteen of them are employed from non-member countries. Besides full-time employees, there are 276 fellows, 371 partnership researchers, 194 students, etc., and they are the so-called staff.

1.1 Strategy for an International Hub

At CERN, the CERN Council which consists of representatives of 20 Member States mainly from the European area, receives advice from the Finance Committee and the Science Policy Committee, which are the consultative bodies, and makes decision on management policy as a top legislative body, and manages the research plan/budget. The CERN Council makes decisions on long term strategy in terms of research and development, as well as on finance. Also, two Deputy Director-Generals (in charge of science and finance) are positioned directly under the Director-General to not only enhance the research aspects, but also to conduct finance operations such as strategic investment on facilities, etc.

CERN is already maintaining its solid position as an international hub for research, and the organization, including the Council and the Director-General is engaged in efforts to make this research institute attractive by planned annual development in regards to investing in facilities to maintain its potential. Specifically, CERN believes that outstanding researchers from all over the world will not gather unless there is a good research environment, as well as a fulfilling living environment where the researchers' families, etc. can spend their time. Accordingly, in addition to newly building and renovating research facilities, CERN is also actively investing in facilities such as housing and cafeterias to enhance the environment to accept people, and this direction is being accelerated in recent years.

Moreover, as an international research institution, CERN has never set any restrictions on nationality since its establishment, and users from non-NPT countries have also been

accepted. At present, staff members consist of people from 20 Member States and 39 Non-member States, and there is a plan to expand its size even more.

1.2 Acceptance & Management of Overseas Researchers and Engineers

In regard to acceptance and management of overseas researchers and engineers, the Users Office is established as a section reporting directly to the Director-General, and its role also includes coordination with other related departments. IDs needed to enter the buildings are allowed to be issued not only to employees but also to their families, so we often find employees and users walking with their families in the buildings.

As for the plan on human resources, a page called "e-recruitment" is set within the CERN homepage, in order to advance active recruitment of student interns, as well as aiming to secure excellent human resources by approaching students who have just graduated.

At CERN, there is a forum called ACCU (Advisory Committee of CERN Users) where CERN Management and users' representatives can hold discussions. Meetings are held 4 times in a year, where people discuss about various problems on living, such as housing, official vehicles within the site (rent-a-car), language training, etc., as well as electing members of study committees to resolve these problems, and it is becoming a more effective organization.

1.3 Research Environment

There are many experiment sites at CERN, such as the LHC Program ATLAS (A Toroidal LHC Apparatus) experiment, COMPASS (COmmon Muon and Proton Apparatus for Structure Spectroscopy) experiment, ASACUSA (Atomic Spectroscopy and Collisions Using Slow Antiprotons) experiment, OPERA (Oscillation Project with Emulsion-tRacking Apparatus) experiment, etc. ATLAS is the largest experiment among these, with about 2,000 users participating yearly. The building for ATLAS users is 5 stories high with a novel design, which has a huge atrium in the middle. Rooms for users are located in each floor, and researchers can be seen talking to each other while enjoying light meals, coffee, etc. at a snack bar situated in the middle of the 1st floor. Meeting rooms are located in each building, and users can reserve them through the website.

The CERN control center (accelerator control center) is a wide space where people handling various control instruments are frequently going in and out or move around, so attention is paid to prevent voice or sound echoes inside the room. Also, as far as the structure of the room is concerned, considerations are made to prevent an oppressive feeling by making the ceiling high and also by providing large windows.

The "INDICO Conference System" is provided in order to hold conferences among multiple bases. It is possible to use this system for the reservation of conferences, reservation of video

conferences, reservation of telephone conferences, conference talk, posting of thesis drafts, thesis archiving, etc. It is also possible to write comments from foreign websites.

It is basically possible to apply for all services through the website, etc. For example, if users acquire an ID and an account, it is possible to request directly to the procurement department of CERN to purchase the materials necessary for experiment if they make a deposit beforehand. Also, there is a page in the website to make a reservation for the renting/accommodation of housing, affiliated apartments in the surrounding area, and hotels. There is also a page of bulletin boards where users can trade cars or daily goods, and a page to see the materials that each team presented in the meetings or in the past. The research environment is very fulfilling.

1.4 Living Environment / Health and Welfare

As for housing, real estate information is posted in the CERN website, and each person basically accesses the information and applies by himself/herself. There is also a support system in case of trouble. Other than these, the website provides information on the community, language schools, sightseeing, etc., and links are provided as well.

Banks, post offices, shops, health centers and tour offices are located within CERN. Sports facilities for soccer, rugby, etc., and facilities such as sports gym, clubs, etc., are also available.

At CERN, there are a nursery and a kindergarten which is operated by CERN and the employee's union, and it is run by 27 staff members. The nursery accepts children from 2 years old, and the kindergarten accepts from two and a half years old. There are no facilities available for after-school care. There is no service such as shuttle buses, so the parents are responsible to transport their children to and from school. Although these facilities accept children of families other than those at CERN, families related with CERN have priority. Moreover, when all child-care facilities are full, information regarding child-care facilities around each community is provided to people related with CERN who live in the French side community for their convenience.

The environment is being enhanced to pay attention to even the researchers' families, such as providing a playroom in the cafeteria to make it possible to have meals with their children, providing an exchange program among parents and children, etc.

1.5 PR Activities / Coexistence with Local Community

As a broad theme of research, CERN is aiming at discovering the Big Bang mechanism and Higgs particle as research in uncharted territory, and to develop accelerators and detectors to be used for this research. CERN believes that it is necessary to foster understanding of science and build a foundation in order to get the public to understand its research and it is conducting project briefing sessions in its community and abroad (England, Mexico, etc.), training programs for students and young researchers to nurture the next

generation of researchers, and also planning a training program for teachers to nurture the students.

There are programs for young researchers, such as CERN High Energy Physics School, CERN Computing School, and CERN Accelerator School. As for programs for students, there is a summer student program and a fellow system.

The summer student program is a lecture program and workshop that is conducted for 6 to 12 weeks during the summer for students who have enrolled for more than 3 years in college (or an institution that is equivalent to a college) majoring in physics, engineering, or computers. The participants actually perform projects under CERN's supervision, and living expenses are paid by CERN. Also, Japan has been investing in this program since 2004, and 5 Japanese students are participating every year. KEK is in charge of supporting the Japanese participants to apply and to screen the contents. The program appears to be favorably received by the participants, because they can feel the international research environment firsthand, and it also has an aspect of internship.

The CERN School for Teachers is provided for high school teachers who teach physics in and out of the country, and there are also participants from Japan.

From the aspect of public relations, CERN has been making efforts to get people to feel closer to CERN, such as posting promotion videos in free video sites typified by YouTube which young people often use, putting out information on experiments using new tools such as Twitter, etc. Also, in order to win the understanding of community residents, etc., the facility is periodically opened to the public, and tours are conducted every Saturday.

Visitors and VIPs are required to apply for visits at the VIP office. The VIP office will coordinate the schedule with various departments according to the purpose, etc. of the scheduled visitors. It will also issue top-down instructions to various departments to secure the required people who will deal with the visitors, reserve conference rooms, arrange snacks and refreshments, etc. and proceed with the preparations. (Refer to documents 4-1, 2) This is, according to what the employees said, one sign of the external strategies that Mr. Heuer, the Director-General, is promoting toward gaining more users.

CERN cooperates with the Welcome Center in Geneva to provide support on housing and education, as well as planning events or offer information to help people from foreign countries to assimilate into the local community.

The growth of the research institution is also having a positive effect on the community's town development/urban planning, and in fact, there is a concept at CERN to expand the site along with the increase of users. As a measure to deal with it, construction to extend the tram is planned to make the access from the Geneva Central Station easier. Also, there is housing for users located in the site, which were built through long-term loan from the local government.

Reference documents:

Appendix 4-1: Instruction to each department from the VIP Office

Appendix 4-2: Agenda that is actually distributed to the visitors

2. The Construction Site of ITER in Cadarache

The ITER Project is a super-large-scale international project to realize an experimental nuclear fusion reactor, and it is being promoted by 7 Parties consisting of Japan, the EU, Russia, the U.S., South Korea, China and India, with the aim to go operational around 2019.

In the ITER Engineering Design Activity (EDA, 1992-2001), technical development based on design was divided among Japan, the EU, Russia, and the U.S., and the design was conducted mainly by the international team. As a result, all of the technical preparation necessary for construction was completed in July 2001. Between the periods after EDA until the start of construction, the international team set up work sites at NAKA Fusion Institute and Max Planck Institute for Plasma Physics in Garching, Germany as an activity of ITER Transitional Arrangements (ITA), and proceeded with their work to maintain the achievements obtained through EDA and to enhance its design. As for the ITA, following a decision to choose Cadarache, France as the ITER construction site in 2005, the work sites in NAKA and Garching were closed at the end of 2006 and merged into the Cadarache work site established at the end of 2005. Later, the ITA was terminated following the ITER Agreement going into effect in October 2007, and the construction phase of the ITER Project began. (The above were taken from JAEA/ITER/ homepages)

2.1 Strategy for an International Hub

In the ITER Project, design of the Tokamak Building, Tritium Plant, etc., as well as ground leveling of the main part of the future ITER construction site (about 42 hectares) were completed in March 2009. Enhancement of the surrounding facilities accompanying the construction, such as roads to transport the materials from the Fes port near the city of Marseilles will be done in the days ahead. From now on, along with the full-scale construction of each building, etc. in the ITER site, the ITER Organization will further strengthen the collaboration with the business department and the research and development related departments to ensure smooth cooperation, etc. of procurement portions assigned to each Party.

Also, as of February 2010, there is a total of about 550 employees from the 7 Parties working in the ITER Organization (ratio of people: the EU 67%, Japan 7%, Russia 6%, the U.S. 6%, South Korea 5%, India 5%, China 4%). The ITER Organization is engaged in enhancement of living environment to encourage the staff from each Party to settle in the Cadarache site. In particular, education of the employees' children is one of the important

considerations for settlement, and the ITER Organization plans to further focus its efforts on establishment of international schools (refer to “2.4 Living environment/welfare”) and enhancement of the quality of education that accompanies it.

2.2 Acceptance ＆ Management of Overseas Researchers and Engineers

Each ITER Party can dispatch visiting researchers to the ITER Organization. In such a case, the dispatching expenses will be borne by the dispatching Party. The ITER Organization makes no restrictions/distinctions by nationality in regard to the acceptance of researchers. Also, there is a Monaco/ITER postdoctoral fellowship program, and 5 postdoctoral researchers are accepted from each Party. The period of stay for these researchers is 2 years, and they are treated as ITER Organization employees.

As for the acceptance support for staff from each Party (ITER Organization staff, subcontracting work staff of ITER Organization and domestic agencies, trainees, etc.), the Welcome Office team is responsible for this task. The team consists of 6 people, and 1 person is responsible for the French program. The budget of this team is funded by the French government (CEA, Ministry of National Education), and the total amount including labor cost/service expenses is 2 Million Euros per year (about 220 Million Yen). Although increase in the number of staff is expected in the future, there have already been cases at this time when responses to inquiries fell behind. Accordingly, improvement of the system, etc. in the future is being planned to provide quicker and precise services. Currently, people of the team are divided between the ITER Organization headquarters and CEA Cadarache research institution, but if the construction proceeds in the future and the staff gather in one location, there is an expectation that services can be enhanced.

In the case of accepting staff from countries outside of the EU, a "Security File" is sent from the Welcome Office, and the necessary information is filled out and sent back along with the necessary documents. Afterwards, an "Invitation Letter" is sent, and the "ITER visa" is obtained by submitting a visa application based on this letter to the French embassy in his/her own country.

After, the ITER staff and their spouses participate in an orientation called the Welcome Seminar, and receive explanations on safety, insurance, medical care, community support groups, cultural activities, description of the Welcome Office, etc. About 600 people have participated in the Welcome Seminar since October 2008.

Since we expect a further increase of staff in the future, including subcontract workers for full scale construction of ITER facilities, the Welcome Office is engaged in strengthening its ability to respond. The ITER Organization is planning to proceed with enhancing both the facility aspect (international school, housing, etc.) and the support aspect (improvement of overall living environment and educational service) to encourage the staff to assimilate smoothly into the local community and to settle there.

The CEA Cadarache research institution, where the tentative Welcome Office is situated until full scale construction of ITER site starts, is under stringent security measures because military researches is also conducted there. However, accommodations are being made to smoothly issue passes with pictures even to visitors from foreign countries at the guard post within a relatively short time, if an application has been made in advance.

2.3 Research Environment

As for the usage of offices, no distinctions are made according to the acceptance status. There is a library located in the ITER Organization building, and can be used freely during the working hours. There are also meeting rooms in each building, and free space is also provided, where researchers, etc. from each Party were seen freely discussing with each other

2.4 Living Environment / Health and Welfare

There are no accommodation facilities owned by the ITER Organization, but the Welcome Office provides support on housing matters from searching, contracts, through to arranging for electricity and gas. The Welcome Office is open between 8:00 - 17:30 from Monday through Friday. People from the village office visit every Tuesday to make various arrangements. The Welcome Office has a track record of supporting more than 1,200 people since its establishment in 2006. There are three kinds of housing support which are: (1) Full support (from house hunting, contracts, procedure related to utilities such as electricity/gas, etc.); (2) Only house hunting; (3) Follow-up support for people who have already found houses by themselves. People can choose according to their situation.

Children from 3 to 5 years old are accepted by the local nursery, and during the first 2 years, out of 24 hours per week, they receive education in their native language for half of the time, and in French for the other half of the time. From the third year, children are required to receive education in French for 2 hours or more per day in each subject.

In 2009, an international school for ITER Organization staff was established in nearby Manosque through contributions from the city of Manosque and 6 neighboring communities (about 5 billion yen in 10 years).

The international school is divided into 7 sections corresponding to the 7 Parties that comprise ITER, and there are nurseries through to high schools. Although it is called an international school, the languages used are English, German, Italian, Spanish, Japanese, Chinese, Hindi and Russian. Also, the Welcome Office provides School Transport service on demand.

At the international school, for children up to 10 years old (nursery children and students in the lower grades of elementary school), school lunch vendors provide specific food as needed for each child. Children in higher grades and above use the cafeteria, but several kinds of menus are provided.

There is a French course for ITER Organization staff, and it is provided in Cadarache and Aix-en-Provence. Courses are also available at night to participate in after work. There is no limit in the number of attendees, and it is free of charge up to the minimum level (C1).

ITER Organization staff can use the sports facilities of the Cadarache research institute. The Welcome Office collects information from each community and posts them on the homepage. Also, during the orientation, it asks each person to register their e-mail addresses, and information on events is provided through the mailing list. The Welcome Office has been offering an event called the Cultural Program since 2007, and has organized short trips to 6 communities around Cadarache. About 420 people participated in a total of 18 trips so far in this program.

Regarding minimum necessary information such as police and hospitals, it is summarized in written form and provided to the new assignees. Also, a "Guideline on emergency procedures," which describes how to cope in the event of an accident, etc. and contacts, etc, has been created and distributed.

As for the staff from each Party, the French government provides services such as free French language classes up to the elementary level, etc. as noted before. However, the language barrier is high and support from the Welcome Office is often required to secure housing and for various procedures such as electricity/water/gas, etc. The Welcome Office is trying to handle inquiries and requests for assistance as promptly as possible as they occur, but there is a limit to handling things with 6 people. Accordingly, improvement of the system, etc. in the future is being planned to provide even quicker and precise services.

2.5 PR Activities / Coexistence with Local Community

There are periodic meetings with the community, in which the ITER Organization's Director-General or his representative participates. Here, the community means the Cadarache community and its surroundings, and regarding the Cadarache community, communication is done by inviting the head of the local government. On the other hand, there is a Local Information Commission in every atomic energy facility in France, and information regarding ITER Projects is presented there to each local community as well.

Regarding the handling of visitors and inspectors, the contact points are the ITER Organization's Public Relations or Agence ITER France, which is the French domestic organization of the ITER Organization.

3. RAL (Rutherford Appleton Laboratory)

The Rutherford Appleton Laboratory (RAL) is one of the largest research facilities among the research institutes owned by one of Europe's largest general scientific research institute (STFC), and is located near Oxford, England. RAL owns the ISIS Accelerator Facility, "Third Generation" Synchrotron Light Source Facility (known as "Diamond," started operating in 2007), High-Power Laser Facility, etc., and conducts the world's front-line research in a broad field of research, such as properties research, high-energy physics, astrophysics, cosmic physics, computer science, etc. Also, the muon facility of Japan's RIKEN (RIKEN RAL) is installed at RAL, and various researches are being conducted there. This facility utilizes the proton beam supplied from the ISIS accelerator and provides surface muons, decay muons, as well as the world's most powerful pulse muon beam. Active researches are being advanced by using this high-power beam, such as muon-catalyzed fusion research and property research using muon spin resonance technique. A cumulative of 570 users has deployed a broad range of joint research that uses muons since 1995.

3.1 Strategy for an International Hub

As for RAL, the STFC, which is its base, has been actively concluding cooperation agreements not just in Britain where it is located, but also with various countries, successfully acquiring large sums of money to make continuous investment possible. Regarding the fund of about 200 million pounds for the Second Target Station which is currently under construction, it was raised through financial cooperation from the British government, and also from Spain, Italy and the Netherlands. In the days ahead, RAL is planning to implement a consistent investment strategy that renews the equipment in 1 to 2 years along a plan in line with the transformation in science, and proceed with international cooperation toward this end. Other than that, there is also cooperation by Australia, the U.S., etc.

3.2 Acceptance & Management of Overseas Researchers and Engineers

As for ISIS, a committee called the Users Committee has been formed to collect the users' opinions on facility operation in general, and it has been seeking to improve the acceptance environment.

Researchers from foreign countries are using various programs. For example, Canada has a 2 month visit program, and Israel has a 1 year visit program. On the other hand, RAL is implementing an "open to the public type experiment program," and it has been accepting foreign researchers broadly. The dispatching organization provides the dispatching expense for this program to the person who is dispatched.

Regarding the acceptance/management of researchers, English is the language being used and the language barrier is low, and it is easy for individuals to obtain various types of information. In view of this, information is not especially provided actively, and a rational system is employed where people fill out a form which they submit to the Users Office upon entry to the site, and receive the necessary services. (Refer to document 5)

Visitors are asked to fill in their basic information, and whether or not they need an ID card, film badge, use of the laboratory, items for the office/laboratory (desk, telephone, computer), user ID for computer access, flight arrangements, transportation to the airport, accommodation facilities, telephone, water, electricity, TV, gas, etc. in the form.

The Users Office consists of 4 staff. There are no particular issues regarding the system to support researchers from foreign countries, and we were told that when problems occasionally occur, they are resolved quickly.

We were told that printed materials such as acceptance manuals are not made, but if visitors or users have questions or problems, they contact the Users' Office directly for resolution.

Researchers from foreign countries who conduct the experiments are taught basic matters such as how to deal with fires, how to use the emergency system, etc., and if they stay for more than 3 months, they attend the same safety seminar as the employees. There is no difference in radiation exposure control from the employees.

There is also a RIKEN RAL homepage, which provides information on the facility outline/utilization method, latest information, current ongoing research, beam time, access, etc. Also, application for laboratory/usage, obtaining procedures regarding the use of the facility, obtaining information on freezing mixture/target specimen, application for airline ticket/housing facilities can be done through the homepage. Photos of the staff, restaurant guide, etc. are shown in English and Japanese, and a full backup is provided to the muon facility users. One administrative employee from RIKEN is being stationed, and acts as a contact point with RAL. There are eleven researchers, of which one is a locally hired employee, and the others are people on extended business trips.

3.3 Research Environment

Research guidance for visitors and users are provided by each RAL laboratory. We were told that RAL is trying to allocate offices for visitors.

Regarding the management of information, there is a huge volume of guidelines, and although people who wish to access the information are required to understand them, we were told that the staffs of RIKEN RAL and each laboratory are coaching people about the important points.

At RIKEN RAL, the staffs are always in attendance to make sure that experiments are conducted efficiently.

Visitors, etc. can also use the library, and it can also be used after working hours.

It is possible to bring in equipment of the users, etc. by going through a safety procedure and having it reviewed.

There are 15 meeting rooms, and a coffee room, etc. as well.

3.4 Living Environment / Health and Welfare

As for securing the housing facilities, the Users' Office serves as a mediator between researchers and owners, and acts as an agent for all kinds of procedures. Therefore, the researchers can easily move in and out, and they can use the housing facilities without having to worry about references or problems with the owners.

A housing facility (60 rooms) dedicated to short-term visitors is located within the site, and is now being expanded with a plan to increase the number of rooms to up to 120. Also, we were told that as a second stage, there is a plan to further build 60 more rooms for to a total of 180 rooms.

In the housing facility, there is a space in the cafeteria where researchers can play snooker (billiards), etc. and hold discussions while they are relaxing. Besides this housing facility, there is also another housing facility in a town called Abingdon, which is about 20 minutes by car from the site, and this facility also accepts short-term and long-term users. Also, the operation of the housing facilities is done by consignment contract (the term of the contract is basically 3-5 years) through competitive bidding, which is the same as in Japan.

The menu in the cafeteria is in English only, and although there are no special menus which take religion into account, they are rich in variety and include vegetarian food as well, and the prices are reasonable.

A nursery facility for employees' children is built next to the site. Also, visitors, etc. can use the sports facilities such as soccer ground, basketball gym, etc., and they can also join the club activities.

In Britain, since people with British nationality can basically get free medical consultation at a public medical institution even though it takes a long waiting time, employees often visit public medical institutions, or private medical institutions in urgent cases. At RAL, a medical facility is built next to the site to provide simple medical treatment for researchers from various countries.

There is no information on housing provided through the website, and no support for private cars is being offered. Accident insurance and liability insurance are purchased by users and visitors by themselves.

Medical examination is available only to employees and users and visitors are required to take it before they arrive. Although counseling service is also available only to employees, we were told that RAL will be flexible to deal with users and visitors who have mental problems.

3.5 PR Activities / Coexistence with Local Community

As RAL deals with specialized technical matters regarding research, etc., in order to prevent people in the community from losing interest or becoming negative toward research, it also asks these people to join as planning members when a new plan is started. This is an effort to involve the community through research as a joint promoter of community development.

Also, an organization called the Local Liaison Committee was established along with three other adjacent research institutions, and explanations of plans such as new research facility construction building, disposal of (radioactive) waste, etc., to the communities are done through this committee (meetings to explain to local residents are held every 3 months) rather than by each research institution to the community (local government/residents), as a collaborative effort to gain the understanding of the community.

Also, as an approach to gain the understanding of local residents, etc., facility tours are held periodically. A Staff and Family Day was also held recently, and the family and friends of the staff toured the facility.

As for information on events in various areas, the Users Office provides them to the users, etc., in order to form ties with local areas.

Reference documents:

Appendix 5: The form which users submit upon entry to the site

4. Summary

Based on the knowledge gained through this investigation, we have summarized the items that JAEA must become engaged in the days ahead in studying how to promote efforts toward an International e.

(1) Strategy for an International Hub

Gaining users is viewed by both CERN and RAL as an important task, and various efforts are being done with the users in mind, not only by departments that interact directly with the users, but also by employees in each administrative department. Furthermore, both organizations have planned and consistent strategies for facility investment to maintain a leading-edge research institution.

In order to develop the research institution into a COE of atomic energy that has “attractive research facilities” where many outstanding researchers gather from abroad, it is necessary to maintain leading-edge research facilities, along with versatility of the facilities.

(2) Acceptance & Management of Overseas Researchers and Engineers

A consolidated contact point (Users’ Office) is an organization which is common to each institution.

To aim for the COE of atomic energy, it is essential to understand the needs of users and to deal with these needs promptly for the realization of a more comfortable living environment

(3) Research Environment

The internet conference system, a research database which can browse through the internet, the system that users as well as employees can easily order materials, etc. provided by CERN are items that tremendously improve the research life.

Formulation of these systems and also nurturing of system designers to provide these systems are important factors to form an International Hub.

(4) Living Environment / Health and Welfare

It is important for researchers to enrich the research environment in order to advance their research at the research institution, but it is also an important factor to enrich the living environment and educational environment of their accompanying family. Existence of the Users Office that takes care of various requests properly, comfortable housing facilities, establishment of nurseries and international schools, etc. are significant factors when researchers consider where they should choose as a base for their research. Each of the CERN, ITER, and RAL sites recognize that the enhancement of living environment and educational

environment are extremely important to gain the users and to encourage the researchers to settle, and these are considered to be issues that must be focused on.

In an environment like Japan where the cultural background is different from those in Europe and the U.S., it becomes imperative to make investments to enhance these facilities to further gain researchers from abroad in the future, especially those who will stay for long-term.

(5) PR Activities / Coexistence with Local Community

It is essential to communicate the content/achievement of research and technical development conducted at the research institution to make it widely known to many foreign and domestic researchers that it is an “attractive research institution”. CERN, ITER, and RAL are all trying to send out the information in different ways.

In order to advance the internationalization of the research institution, it is important for the research institution itself to provide an attractive research facility and living environment. The environment of the community where the research institution is located is also important. In the future, it is also necessary to conduct an investigation on the details of discussion at the Users Committee, examples of improvement, content of urban planning by collaboration with the community, specific backing by the community, etc.

Conclusion

Each of the research institutions that we have investigated this time is taking steady actions by looking at several years or decades ahead into the future. Although they are faced with problems such as cutbacks in personnel or budget, we saw that the staff have a high awareness and are working together for an International Hub.

At JAEA, in order to maintain a solid position worldwide as a COE in the atomic energy field in future years, it is imperative that we send out a strong message to steadily advance the efforts for an international hub, and to handle them in specific and visible ways, including securing the budget and gaining the support of the communities.

Appendix1 List of Survey Items(CERN)

Major category	Minor category	No.	Item	Response entry
International strategy	Continuous investment strategy	1-1	Currently, CERN has established its position as the world's top research institute, including the field of accelerators. Are there any activities for using continuous investment strategy (such as upgrading the specification of the facilities, construction of new facilities, public relations, etc.) as a strategy to enhance the international value of the research facilities?	As the highest decision-making body, the CERN Council composed of representatives of 20 Member States decides the operation policy, and manages the research plan/budget. The organization, including the Council and the Director-General is engaged in efforts to make this research institute attractive by planned annual development in regards to investing in facilities to maintain its potential. Specifically, we believe that outstanding researchers from all over the world will not gather unless there is a good research environment, as well as a fulfilling living environment where the researchers' families, etc. can spend their time. Accordingly, in addition to newly building and renovating research facilities, we are also actively investing in facilities such as housing and cafeteria to enhance the environment to accept people, and this direction is also being accelerated in recent years due to the intension of Mr. Heuer, the current Director-General.
	Utilization of international cooperation, etc.	1-2	As a strategy to enhance the international value of the research facilities, are there any examples of effective utilization of international cooperation as a means to maintain and improve presentation skills?	
Acceptance/ management (Personnel, safety, information, security)	Composition of the staff	2-1-1	What is the composition of the employees? (What is the composition ratio of employees from countries other than those within the EU or the U.S. such as Asia and the Middle East?)	There are 2,544 employees, 95% of them from 20 countries (Member States) and 5% of them from Non-member States (as of 2007) Page 7 in the general outline of CERN
	Type of positions accepted	2-2-1	JAEA is accepting researchers from various counties/regions around the world as visiting professors and trainees, in addition to the employees. What kind of system do you have at your research facility regarding the acceptance of researchers from various countries? Also, in each of these systems, are there any differences in acceptance conditions compared with those for the acceptance of researchers from countries within the EU?	Full time employees, 276 fellows, 371 partnership researchers, 194 students, etc., 9,974 from 66 user countries (as of the end of 2007)
		2-2-2	We heard that researchers from North Korea, etc. are accepted. Are there any restrictions on the acceptance of researchers who are nationals of non-NPT countries, countries under UN sanctions, etc.?	There are no distinctions.
	Accepting organization	2-3-1	We heard that there is a Users Office that supports the acceptance of researchers from countries and regions around the world. What is its size (number of staff, annual budget)? Also, the homepage of the Users Office is very well made. How much is the budget to operate it?	Seven persons. Before the Users Office was established, the task was passed around from one section to another, but now it is unified in the Website; the Website was enhanced, where any information is available and people can also do anything. First, (1) people register as a user; (2) they get a computer accout. Various applications can be made through the computer (Website). The password has now been unified so users can perform various tasks with a single password. (shopping request, access request, CERN document server, Indigo, etc.)
		2-3-2	Are there any issues regarding the system to support researchers from foreign countries?	Cutbacks in the Users Office personnel, increase of the users, enhancement of the Website
		2-3-3	How are requests and issues that are conveyed to the Users Office handled? (Are they discussed with various departments and reflected to their operations afterwards?)	The research facility's users association (directly tied to the Council President), ACC Committee, and the Advisory CERN Committee (members are from various countries) discuss about how to make life at CERN comfortable. It is held four times a year (there is request to do something about getting working visas for the family members)
		2-3-4	We heard that when visas for family members, etc. of people other than those accepted from outside of the EU, etc. are obtained (to obtain resident status), there is no support service by CERN. Are there any request from people that the research facility become the sponsor? Or, if the research facility does not become the sponsor, do individuals become sponsors out of their goodwill?	They are sent to the Users Office, including those for the family, then each Foreign Ministry and CERN will make the arrangements.
	Accepting manual document	2-4-1	Are the manual documents, etc. to accept people in each status maintained properly?	In the Web page.
	Orientation	2-5-1	What is the content of the orientation, and how many hours does it take? What is the number of staff who handle this task? Also, what is the number of people who are being accepted?	There is basic safety training that all users must take. Depending on the place they access and the work (operating a crane, special-purpose vehicles, etc.), users must receive the training provided by CERN. Applications are done through the Web.
	Safety management	2-6-1	Are there any safety seminars (such as radiation handling safety seminars) given to researchers from various countries/regions?	
	Rights, obligations	2-7-1	Are there any differences in rights and obligations depending on the status of acceptance? Is there anything in written form?	There are no differences.
	Allowances	2-8-1	Is there any differences in various allowances (educational allowance, etc.) among the EU countries and other countries (or by accepted position)?	This is handled on a case-by-case basis. We subsidize for those from developing countries.
	Various insurance	2-9-1	Are the accident insurance and liability insurance for users, etc. included in the contract clauses, etc?	It is written in the document upon acceptance.
	Preferential treatment as an international organization	2-10-1	Are there any preferencial treatments as an international organization in respect to the treatment of the employees (tax exemption measures, etc.)?	There is a tax exemption measure for income tax (staff only). There are no measures for the users.

	Union membership	2-11-1	Are there any labor unions? What is the ratio of union membership for people in each accepted position?	All of the staff are members. (There was a strike last December on pension issues)
	Health management	2-12-1	Are there any medical examinations provided for people accepted for a short term, trainees, etc.?	It is done for the staff. The users do it by themselves.
		2-12-2	Are there any differences regarding medical and welfare aspects among researchers of Swiss nationality or from the EU and those from other countries? (Is there any support provided in case the researcher (or family members)) becomes sick, or are there any services such as clinics, etc. where explanations are provided in English, etc.?)	Clinics are available. If needed, call 4444 for Pompie (about 100 firemen).
		2-12-3	Is there any support provided for mental health care? Are there any systems smilar to university tutors?	A psychologist is hired by the personnel department.
	Radiation exposure	2-13-1	Are there any differences regarding radiation exposure management between people in each accepted position and the employees?	There is no difference. Radiation exposure management is also linked with the database. Training needed for the users, registration, and results are all handled by the Website.
	Information management	2-14-1	How is information managed according to each accepted position? Manuals, training, compliance training, equipment management, measures taken when taking out/bringing in information, management of USB memory sticks, etc.	There is a rule on computer usage. No compliance trainng is provided.
		2-14-2	What kind of access authorization is given according to each accepted position?	Even short term (one or two days) visitors are immediately connected to the network (about 10 minutes) with the user as a sponsor. Users never feel inconvenience. Users are also the sponsors of visitor cards. There is authority according to the positions and roles (there are web pages which only the Collaboration members can see). The authentication systems use one common password. Indigo conference system: Used for reservation of meetings, video conferences and telephone conferences. It is used for various things such as conference talk, thesis drafting and archiving. There are 20 to 30 meetings every day. Anyone can see it and write comments, whether the person is in England or in the U.S. It is designed to enable each person to do it. (It can be flexibly adapted) It is a tool that people can plan and do things on their own. Accounting for the organization is also done by computers. Talks that occurred 5 years ago can also be watched. KEK is also introduced. Access authorization is provided, including the family members. It was developed by the IT department: a team of 3 to 4 people
	Intellectual property management	2-15-1	How are intellectual properties such as patents and inventions managed according to each accepted position?	Intellectual properties are all disclosed.
	Setting restricted areas	2-16-1	Are there any restricted areas set according to each accepted position?	It depends on each situation of the training courses.
Research environment enhancement	Use of living quarters, labs, computers	3-1-1	How are the usages of offices, labs and computers allocated according to each accepted position?	They should be negotiatiated with the head of each item, such as offices.
	Use of the library	3-2-1	What are the library usage hours? Can people in each accepted position use the library? Are there any restrictions? Also, what is the usage status?	The users, etc. also can use it. There is no restriction. It is available even after working hours.
	Procurement of lab equipment	3-3-1	What methods are used to procure lab equipment, etc. for the users, etc.?	It is possible to purchase by CERN contract through the shopping system. Account should be aquired beforehand.
	Research paper submission procedure	3-4-1	Are there any procedures to submit research papers according to each accepted position?	None. Archive research paper service: They are submitted to magazines as preprints of CERN by entering to the server. Collaboration is communicated through the journal.
	Attending meetings, etc. (rights, obligations)	3-5-1	Are there rights and obligations regarding the attendance of meetings, etc. according to each accepted position?	It depends on each experiment and personal condition. There are 2000 people in ATLAS, and there is a group that looks after it.On each meeting, ATLAS users adjust the difference of opinion.
	Common spaces such as meeting rooms, etc.	3-6-1	Are there common spaces such as meeting rooms, etc.? Are they available in each building?	There are meeting rooms in each building. It is possible for users to make reservations through the Web.
	Research guidance	3-7-1	What is the system to provide research guidance to people in each accepted position?	The students are handled as a group. Each group is dealt based on sociological considerations.

Surrounding environment	Lodging facilities, housing (self-managed, contracted, mediated: the same applies below)	4-1-1	Mediation is provided for rental of housing and living quarters. How are they operated? (It seems that CERN is managing the operation of 3 hostel buildings established in Switzerland and renting out apartments. How much is the annual cost required to operate them?)	There are Hostel buildings 38, 39, and 41 for short-term stay on the premises. They can be reserved two months in advance. English can be used. A common kitchen is located in each floor. It is financially independent, the building is provided by CERN, but the GS department manages them. It charges 55CHF per night. Short term users are using it. It is almost always full. Registration is possible by e-mail (response in half a day). Credit cards are accepted. One can stay almost without speaking at all. The front desk is open 7:30-19:30 during working days, 9:00-13:00 on weekends, and during other hours, the keys can be received at the guard gate. Hostel 39 and Office Building 40 were donated by Switzerland. (there is a benefit to the local area)
		4-1-2	In Japan, when researchers from various countries rent housing facilities (residential houses), problems (smell, noise, financial) occur frequently. Have there been any problems when researchers rent housing facilities (residential houses)? Is there any mediation provided?	The rent of apartments is around 80,000 to 100,000. Information (on private housing) is obtained from the Housing Office (Bldg. 39) and people contact the owner of the house. Negotiation is done on their own. Information is also available from the homepage. It is updated twice a week. There are some apartments which are lent by CERN. There is a CERN market in the homepage, where people look for apartments, sell and buy furniture, etc.
		4-1-3	In Japan, various procedures for living are more complicated compared to Western countries due to the difference in language, and Japanese staff accompany the researchers to perform the procedures to open bank accounts, make arrangements for electricity/gas/water, etc. At CERN, various contact information are posted in the homepage. Are there any requests, etc. from the researchers?	The information is available through the Web. People deal with things by themselves. Support is available when there is a problem. There is no Japanese association. There are 60-80 full-time Japanese staff. 100 persons are registered, and about 200 persons use it during one year.
	Children's education (nursery, kindergarten, elementary and junior high schools)	4-2-1	Is there any mediation, etc. provided for children of researchers from countries and regions around the world? Are there international schools, etc. available for use? (What is the composition ratio of students from countries other than the EU countries or the U.S., such as Asia and the Middle East?)	There is an international school in Geneva, but the tuition is high. There are standard elementary schools in the local area. Classes are conducted in French.
		4-2-2	If there are any international schools, are there any programs that deal with each country (regarding classes in their native language, history/culture of their home country) and mental health care (if the children are adapting to school), etc.?	Japanese language school: There are classes on Saturdays
		4-2-3	If there are any international schools, what measures are taken in case children of users from countries and regions around the world have taboos against certain food? (Are there any special menus, etc. available?)	None
	Cafeteria	4-3-1	What is the language of the cafeteria menu?	French, English
		4-3-2	Does the menu in the cafeteria accommodate multiple cultures? (Are there menus for Muslims and menus with consideration to vegetarians?) Similarly, do the facility stores and community shops provide items that accomodate multiple cultures and religions? (Is there merchandise, etc. for Muslims, Jews, etc.?)	There are two cafeterias with a variety of food.
	Welfare and recreation facilities	4-4-1	What are the types of welfare facilities available? Also, can they be used by people in any accepted position? How is guidance being provided?	Local facilities are used. Sports centers and local clubs are available. Language training, etc. are available at women's club (for the wives of the users).
	Various guidance and offers	4-5-1	How is information on clothing, food and housing in the community obtained from the community, and communicated to the users, etc.? Also, is there any mediation provided?	It can be picked up from the website.
		4-5-2	How is information on events in the community also obtained from the community, and communicated to the users, etc.? Also, is there any mediation provided?	It can be picked up from the website.
		4-5-3	Is there any guidance, etc. provided on tourist information?	A travel agency is located inside CERN. It can be used for business trips or private trips.
		4-5-4	Is there any guidance, etc. provided on language schools, etc.?	They are posted in the website, or links. Bulletin boards in the cafeteria are used.
	Emergency response	4-6-1	How is emergency response handled when accidents, etc. occur? What method is used for communication (including the language used for broadcasting within the premises)? What is the method to deal with the local government or embassies?	There is no broadcasting within the premises. There is no simultaneous notice from CERN mobile phones. When a Japanese college student died in the past, the emergency response team dealt with it, and people around him notified the consulate.
		4-6-2	The communication system regarding accidents within the research facility was posted in the homepage. There any special support provided when terrorism or large-scale disasters occur?	The emergency response team will deal with it.
Collaboration with the community, public relations, etc.		5-1	What efforts are being made to collaborate with the community and public relations?	Leaflets are made for large projects. Outreach efforts are made by conducting tours on Saturdays and setting open days. We contribute to the fireworks in Lake Leman. CERN is picked up by Geneva broadcasting.

		5-2	Are the researchers from each country and their families assimilating into the local community? Is there any special support provided in collaboration with the community to researchers from countries and regions around the world and their families, or opportunities to have exchanges with the community?	People treat them as foreigners who cannot speak French, without making them feel uncomfortable in a normal way.
Opening the facility to the public		6-1	Are there any efforts being implemented to gain the understanding of the community residents, etc.? Are there activities such as opening the facilities to the public?	There is an open day. CERN is the last bus stop, thus everybody knows about us.
Methods to deal with visitors and inspectors		7-1	What method is being used to deal with visitors and inspectors?	People send requests to the VIP Office (3-4 persons) to deal with visitors and VIPs. People at the job sites are supposed to follow when an e-mail is sent from the VIP Office.

List of Survey Items(Child-care Center in CERN)

Major category	No.	Item	Resonse entry
Management	1-1	What is the number of employees and teachers at the child-care center? How much is the annual budget? Are there also any subsidies from the national or local governments? What language is used?	27 staffs. About 1.5 million CHF. There is subsidy from CERN and the staff union. The language used is French.
When to start	2-1	Is there a fixed starting date?	The application to enroll in the child-care center for the next year is the beginning of March every year.
Target	3-1	Is it possible to place children of researchers from outside of the EU states to the child-care facilities, etc.?	Yes, we accept children from all over the world.
	3-2	From what age can children be placed?	From two years old in the child-care center, and two and a half years old in the kindergarten. Several languages are spoken by the staff. Language is not yet required for communication.
	3-3	Do you also accept children from outside of the CERN region?	From anywhere, as much as possible. People related with CERN have priority.
	3-4	Is there any after-school care program?	No, there is no such facility.
	3-5	Are there any waiting children?	There are 5 at this moment.
Temporary child-care	4-1	Are there any short-term acceptance programs? Are children of visitors accepted? Are children accepted by the hour?	In this regard, the child-care center accepts children for half a day.
Period	5-1	From what time to what time can the children be placed?	The child-care center is open from 8:30 to 12:00. The kindergarten is open from 8:00 to 12:15, and from 1:30 to 5:45.
Support for sick children	6-1	What is done when children become sick, such as having a fever? Do you provide care for sick children?	Basically, sick children are supposed to stay at home.
Child-care fee	7-1	How much is the child-care fee?	For half a day, it is 660CHF per month. For all day, it is 13200 CHF per month.
Meal	8-1	What measures are taken in case children of users from countries and regions around the world have taboos against certain food? (Are there any special menus, etc. available?)	There is no special menu available at this time. All children eat the same food unless there is an instruction from the doctor.
Transportation	9-1	Are there any transportation services available such as buses?	The parents are supposed to bring their children here.
Support for the parents	10-1	Is there any child rearing consultation, etc. available?	We provide information from the community on child rearing suport to the parents.
Issues	11-1	Have any problem occured, or are there any issues, etc.?	None

Appendix2 List of Survey Items(ITER)

Major category	Minor category	No.	Item	Response entry
International strategy	Continuous investment strategy	1−1	Are there any activities for using continuous investment strategy (such as upgrading the specification of the facilities, construction of new facilities, etc.) as a strategy to enhance the international value of the research facilities?	In addition to the 7 Parties cooperating to carry on the research and development, the IO is hoping that the staff will settle in this area. Therefore, we would like to make further improvements in the living environment to enhance the staff's lives in the days ahead.
	Utilization of international cooperation, etc.	1−2	As a strategy to enhance the international value of the research facilities, are there any examples of effective utilization of international cooperation as a means to maintain and improve presentation skills?	−
Acceptance/ management (Personnel, safety, information, security)	Composition of the staff	2−1−1	What is the composition of the employees? (What is the composition ratio of employees from countries other than those within the EU or the U.S. such as Asia and the Middle East?)	Currently, there are about 550 employees working here from the 7 Parties that comprise ITER. As of the end of February 2010, there are 298 specialist employees and 153 support employees, for a total of 451. As of the end of December 2009, the breakdown of the specialist employees are as follows: Europe 60%, Japan 8%, U.S.A. 8%, Russia 7%, South Korea 7%, China 6%, India 5%.
	Type of positions accepted	2−2−1	JAEA is accepting researchers from various counties/regions around the world as visiting professors and trainees, in addition to the employees. What kind of system do you have at your research facility regarding the acceptance of researchers from various countries? Also, in each of these systems, are there any differences in acceptance conditions compared with those for the acceptance of researchers from countries within the EU?	Each participating Party can dispatch a visiting researcher to the ITER Organization. The dispatching expense is borne by the dispatching Party. Also, there is a Monaco/ITER postdoctoral fellowship program, and 5 postdoctoral reseachers are accepted from each participating Party (The term is 2 years. They are treated as ITER Organization employees.).
		2−2−2	When accepting researchers from foreign countries, are there any restrictions on the acceptance of researchers who are nationals of non−NPT countries, countries under UN sanctions, etc.?	No distinctions are made for the 7 ITER participating Parties.
	Accepting organization	2−3−1	We heard that there is a department that supports the acceptance of researchers from countries and regions around the world. What kind of support does it provide? Also, what is its size (number of staff, annual budget)?	The Welcome Office staff provide acceptance support for staff from each Party (targeted at IO staff, subcontracting work staff of IO and domestic agencies (DA), trainees, etc.). The team consists of 6 people, and 1 person is responsible for the French program. The budget is funded by the French government (CEA, Ministry of National Education), and the total amount is 2 Million Euros per year (including labor cost and service expenses).
		2−3−2	Are there any issues regarding the system to support researchers from foreign countries?	We expect a further increase of people in the future, including subcontract workers. Although the Welcome Office is making efforts to respond as quickly as possible when inquiries are made by the staff, there are times when responses are inadequate and get delayed because only 6 people are handling the work. We would like to improve the system, etc. in the future so we can provide even quicker and precise services. Currently, people are divided between ITER headquarters and CEA Cadarache, but if the construction at the planned location proceeds in the future and the staff gathers in one location, there will probably be areas where services can be enhanced.
		2−3−3	How are requests and issues that are conveyed to the accepting organization, etc. handled? (Are they discussed with various departments and reflected to their operations afterwards?)	The Welcome Office is handling them individually.
		2−3−4	During acceptance, does it support external procedures, etc. (obtaining visas), and if so, is the department providing the support acting as an agent? When visas for family members, etc. of people other than those accepted from Britain, etc. (outside of the EU) are obtained (to obtain resident status), does the research facility become the sponsor? Or, do individuals become sponsors out of their goodwill?	In the case of accepting people from countries outside of the EU, a "Security file" is sent from the Welcome Office, and the necessary information is filled out and sent back along with the necessary documents. Afterwards, an "Invitation letter" is sent, and the "ITER visa" is obtained by undergoing a visa application procedure at embassies, etc.
	Accepting manual document	2−4−1	Are the manual documents, etc. to accept people in each status maintained properly?	They are posted on the homepage of the ITER Welcome Office (http://www.itercad.org/welcome.php)

	Orientation	2-5-1	What is the content of the orientation, and how many hours does it take? What is the number of staff who handle this task? Also, what is the number of people who are being accepted?	After the ITER staff and their spouses are assigned, they participate in an orientation called the Welcome Seminar, and receive explanations on safety, insurance, medical care, community support groups, cultural activities, description of the Welcome Office, etc. About 600 people have participated in the Welcome Seminar since October 2008.
	Safety management	2-6-1	Are there any safety seminars (such as radiation handling safety seminars) given to researchers from various countries/regions?	This is implemented as part of the abovementioned orientation. It is implemented within 1.5 months after the start of assignment. In the future, we are planning to consolidate it to once every six months.
	Rights, obligations	2-7-1	Are there any differences in rights and obligations depending on the status of acceptance? Is there anything in written form?	ITER Organization Employee Regulation
	Various insurance	2-8-1	Is the accident insurance and liability insurance included in the contract clauses, etc?	There is a system for pension, medical care insurance, life insurance and incapacity insurance for ITER Organization's employees.
	Union membership	2-9-1	Are there any labor unions? What is the ratio of union membership for people in each accepted position?	There is an employee's committee.
	Health management	2-10-1	Are there any medical examinations provided for people accepted for a short term, trainees, etc.?	Medical examinations are not provided for people who are accepted for a short term.
		2-10-2	Are there any differences regarding medical care and welfare aspects among British (French) researchers and those from other countries? (Is there any support provided in case the researcher (or family members) becomes sick, or are there any services such as clinics, etc. that provide free medical examinations or consultations?)	There is no difference in medical care and welfare aspects among participating Parties. There is no free clinic.
		2-10-3	Is there any support provided for mental health care? Are there any systems similar to university tutors?	There is no mental health care provided. We are planning to enhance the support program (buddy partner program) for newly assigned people.
	Radiation exposure	2-11-1	Are there any differences regarding radiation exposure management between people in each accepted position and the staff?	At this time, there is no controlled area.
	Information management	2-12-1	How is information managed according to each accepted position? Manuals, training, compliance training, equipment management, measures taken when taking out/bringing in information, management of USB memory sticks, etc.	People accepted for a short term (including business trip visitors) apply for bringing in personal computers, etc. at the gate upon entering the facilities, and bring them in after being checked.
		2-12-2	What kind of access authorization is given according to each accepted position?	People other than official employees cannot connect to the intranet, and they use the network for guests.
	Intellectual property management	2-13-1	How are intellectual properties such as patents and inventions managed according to each acceptance status?	In accordance with the management regulation of intellectual properties provided in the ITER Agreement.
	Setting restricted areas	2-14-1	Are there any restricted areas set according to each accepted position?	-
Research environment enhancement	Use of living quarters, labs, computers	3-1-1	How are the usages of offices, labs and computers allocated according to each accepted position?	No distinctions are made on offices, etc. according to the accepted position.
	Use of the library	3-2-1	What are the library usage hours? Can people in each accepted position use the library? Are there any restrictions? Also, what is the usage status?	There is one room in the ITER Organization that is a library (reference room), and it can be used. It can be used during working hours (roughly 9:00-12:00, 13:30-16:30).
	Procurement of lab equipment	3-3-1	What methods are used to procure lab equipment, etc. for the users, etc.?	-
	Research paper submission procedure	3-4-1	Are there any procedures for submitting research papers according to each accepted position?	It is handled on a case-by-case basis.
	Attending meetings, etc. (rights, obligations)	3-5-1	Are there rights and obligations regarding the attendance of meetings, etc. according to each accepted position?	-

	Common spaces such as meeting rooms, etc.	3-6-1	Are there common spaces such as meeting rooms, etc.? Are they available in each building?	There are meeting rooms in each building. Also, there are drink vending machines and free spaces in each building.
	Research guidance	3-7-1	What is the system to provide research guidance to people in each accepted position?	-
Surrounding environment	Lodging facilities, housing (self-managed, contracted, mediated: the same applies below)	4-1-1	Is there any mediation provided for housing rentals or purchasing? Also, is there any support provided regarding purchases of cars, etc.? If so, what are the methods for both cases? (Installation, etc. of spaces, bulletin boards, etc. for mediation or exchange of information among researchers)	We provide care from finding housing, and contracts, through to arranging for electricity and gas. People from the village office visit every Tuesday to make the arrangements. We have a track record of supporting more than 1,200 people since our establishment in 2006.
		4-1-2	Are there any housing facilities (for short and long term assignments) owned by the research facility for researchers from various countries? If so, what is the size?	None
		4-1-3	In Japan, when researchers from various countries rent housing facilities (residential houses), problems (smell, noise, financial) occur frequently. Have there been any problems when researchers rent housing facilities (residential houses)? Is there any mediation provided?	Here (in France), there were problems related to plumbing.
		4-1-4	In Japan, various procedures for living are more complicated compared than Western countries due to the difference in language, and Japanese staff accompany the researchers to perform the procedures to open bank accounts, make arrangements for electricity/gas/water, etc. Is there any similar support provided by your research facility? Or, are there manuals, etc. for living available for researchers from each country?	We provide care from finding housing, contracts, through to arranging for electricity and gas. People from the village office visit every Tuesday to mage the arrangements. We have a track record of supporting more than 1,200 people since our establishment in 2006.
	Children's education (nursery, kindergarten, elementary and junior high schools)	4-2-1	Are there any childcare facilities (nurseries, etc.) available for use? (Is it possible to place children of British (French) researchers? Do the staff speak the language?)	The nursery accepts children from 3 to 5 years old (from all of the 7 Parties), and during the first 2 years, out of 24 hours per week, they can receive education in their native language for half of the time, and in French for the other half of the time. From the third year, children are required to receive education in French for 2 hours or more per day for each subject.
		4-2-2	Is there any mediation, etc. provided for children of researchers from countries and regions around the world? Are there international schools, etc. available for use? (What is the composition ratio of students from countries other than Britain (France) such as Asia and the Middle East?)	There is an international school in Manosque for ITER staff. The international school is divided into 7 sections corresponding to the 7 Parties that comprise ITER, and there are nurseries through to high schools. Education is provided in English, German, Italian, Spanish, Japanese, Chinese, Hindi and Russian languages. Also, the Welcome Office provides School Transport service on demand as well.
		4-2-3	Are there any programs that deal with each country (regarding classes in their native language, history/culture of thie home country) and mental health care (if the children are adapting to school), etc.?	(For ITER staff and their families) There is a French program, and it is provided in Cadarache and Aix-en-Provence. Courses are also available at night to participate in after work. There is no limit in the number of attendees, and it is free of charge up to the minimum level (C1).
		4-2-4	What measures are taken in case children of users from countries and regions around the world have taboos against certain food? (Are there any special menus, etc. available?)	For children up to 10 years old (nursery children and students in the lower grades of elementary school), school lunch vendors provide specific food as needed for each child. For children in higher grades and above, they use the cafeteria and there are choices of food.
	Cafeteria	4-3-1	What is the language of the cafeteria menu?	It is in French only.
		4-3-2	Does the menu in the cafeteria accommodate multiple cultures? (Are there menus for Muslims and menus with consideration to vegetarians?) Similarly, do the facility stores and community shops provide items that accomodate multiple cultures and religions? (Is there merchandises, etc. for Muslims, Jews, etc.?)	None (within the knowledge of the assignees)
	Welfare and recreation facilities	4-4-1	What are the types of welfare facilities available? Also, can they be used by people in any acceptance status? How is guidance being provided?	It is possible to use the CEA/Cadarache sports facilities.
	Various guidance and offers	4-5-1	How is information on clothing, food and housing in the community obtained from the community, and communicated to the users, etc.? Also, is there any mediation provided?	The Welcome Office collects information from each community and publishes them in the homepage. Also, regarding minimum necessary information (police, hospitals, etc.), it is summarized in written form and provided to the new assignees.
		4-5-2	How is information on events in the community also obtained from the community, and communicated to the users, etc.? Also, is there any mediation provided?	During the orientation, we ask for the mail address of each participant, and provide information on various events, etc. through the mailing list.

		4–5–3	Is there any guidance, etc. provided on tourist information?	Besides providing information on various communities, we have organized short trips to 6 communities around Cadarache as a Cultural Programme from 2007, and a total of about 420 people have participated in 18 trips so far.
		4–5–4	Is there any guidance, etc. provided on language schools, etc.?	It is provided to ITER and their families.
	Emergency response	4–6–1	How is emergency response handled when accidents, etc. occur? What method is used for communication (including the language used for broadcasting within the premises)? What is the method to deal with the local government?	Procedures on emergency response are available.
		4–6–2	Is there any special support provided when accidents, terrorism or large–scale disasters occur within the research facility?	Procedures on emergency response are available.
Collaboration with the community, public relations, etc.		5–1	What efforts are being made to collaborate with the community and public relations?	There are periodic meetings in which the Director–General or his representative participates. Also, there is a Local Information Commission in every atomic energy facility in France, and information regarding ITER Projects is presented there to the local community as well.
		5–2	Are the researchers from each country and their families assimilating into the local community? Is there any special support provided in collaboration with the community to researchers from countries and regions around the world and their families, or opportunities to have exchanges with the community (organizations such as exchange associations)? Also, are there any events to teach the community's culture to researchers from various countries, or any events where researchers from various countries can introduce their cultures?	It appears that the areas around Cadarache (Aix–en–Provence, Manosque) were not tolerant of foreigners in any way to begin with, but in recent years, the environment has gradually become easier to assimilate into by carrying out activities to promote understanding. Along with holding workshops and seminars on different cultures, etc. to deepen the exchange, the IO would like to expand our services with the aim of having the staff settle down in the region. Also, acceptance of teachers and trainees at community colleges, etc. are being implemented.
Opening the facility to the public		6–1	Are there any efforts being implemented to gain the understanding of the community residents, etc.? Are there activities such as opening the facilities to the public?	Periodic meetings are held in the Cadarache community and surrounding regions, and in Cadarache, communication is done by inviting the village mayor.
Methods to deal with visitors and inspectors		7–1	What method is being used to deal with visitors and inspectors?	The ITER Organization's Public Relations and ITER France are acting as the contact points.

Appendix3 List of Survey Items(RAL)

Major category	Minor category	No.	Item	Response entry
International strategy	Continuous investment strategy	1−1	Are there any activities for using continuous investment strategy (such as upgrading the specification of the facilities, construction of new facilities, etc.) as a strategy to enhance the international value of the research facilities?	Regarding the fund of about 200 million pounds for the Second Target Station which is under construction, there is financial cooperation from the UK government, and also from Spain, Italy and the Netherlands. There is also a new investment strategy. Creating a consistent investment strategy that renews the equipment in 1 to 2 years along a plan in line with the change in science leads to our success.
	Utilization of international cooperation, etc.	1−2	As a strategy to enhance the international value of the research facilities, are there any examples of effective utilization of international cooperation as a means to maintain and improve presentation skills?	International cooperation is indispensable. In fact, about half of the expense of the Second Target Station is funded by cooperating countries − Spain, Italy and the Netherlands. Other than that, there is also cooperation by Australia, the U.S., etc.
Acceptance/ management (Personnel, safety, information, security)	Composition of the staff	2−1−1	What is the composition of the employees? (What is the composition ratio of employees from countries other than those within the EU or the U.S. such as Asia and the Middle East?)	Depending on different periods, scientitic staff come from various countries. There is nobody accepted from the Middle East.
	Type of positions accepted	2−2−1	JAEA is accepting researchers from various counties/regions around the world as visiting professors and trainees, in addition to the employees. What kind of system do you have at your research facility regarding the acceptance of researchers from various countries? Also, in each of these systems, are there any differences in acceptance conditions compared with those for the acceptance of researchers from countries within the EU?	Visitors come by using various programs. For example, Canada has a 2 month program, Israel has a one year program, etc.
		2−2−2	When accepting researchers from foreign countries, are there any restrictions on the acceptance of researchers who are nationals of non−NPT countries, countries under UN sanctions, etc.?	There are times when restrictions related to nuclear issues are set according to circumstances. When we accept short term visitors from certain countries, approval from the diplomatic authority is necessary.
	Accepting organization	2−3−1	We heard that there is a department that supports the acceptance of researchers from countries and regions around the world. What kind of support does it provide? Also, what is its size (number of staff, annual budget)?	4 staff. The budget is unknown.
		2−3−2	Are there any issues regarding the system to support researchers from foreign countries?	There is no problem. In rare cases when there is a difficult problem, it is resolved quickly.
		2−3−3	How are requests and issues that are conveyed to the accepting organization, etc. handled? (Are they discussed with various departments and reflected to their operations afterwards?)	−
		2−3−4	During acceptance, does it support external procedures, etc. (obtaining visas), and if so, is the department providing the support acting as an agent? When visas for family members, etc. of people accepted from Britain, etc. (outside of the EU) are obtained (to obtain resident status), does the research facility become the sponsor? Or, do individuals become sponsors out of their goodwill?	A document proving the acceptance is issued and sent to the researcher. Regarding the support for the family, requirements are different by nationality, and it is done on a case−by−case basis.
	Accepting manual document	2−4−1	Are the manual documents, etc. to accept people in each status maintained properly?	We have not made any specific printed material. If visitors or users have questions or problems, they contact the Users Office directly.
	Orientation	2−5−1	What is the content of the orientation, and how many hours does it take? What is the number of staff who handle this task? Also, what is the number of people who are being accepted?	Staff who work at the job site are taught basic matters such as how to deal with fires, etc. If people stay for more than 3 months, they attend the same safety seminar as the other employees.
	Safety management	2−6−1	Are there any safety seminars (such as radiation handling safety seminars) given to researchers from various countries/regions?	They wear a radiation badge. Safety instructions are posted in the homepage.
	Rights, obligations	2−7−1	Are there any differences in rights and obligations depending on the status of acceptance? Is there anything in written form?	People have an obligation to pay income tax.
	Various insurance	2−8−1	Is the users' accident insurance and liability insurance included in the contract clauses, etc?	They are purchased by each person, not by RAL.
	Union membership	2−9−1	Are there any labor unions? What is the ratio of union membership for people in each accepted position?	There is, but membership is only open to the employees.

	Health management	2-10-1	Are there any medical examinations provided for people accepted for a short term, trainees, etc.?	It is provided for the staff, but normally not for users and visitors. They must take a full medical examination upon entry.
		2-10-2	Are there any differences regarding medical care and welfare aspects among British (French) researchers and those from other countries? (Is there any support provided in case the researcher (or family members) becomes sick, or are there any services such as clinics, etc. that provide free medical examinations or consultations?)	British citizens can receive medical and welfare services, but we don't think that conditions for foreigners outside of the EU are the same as those for British citizens. For example, they can receive emergency medical care (free of charge), but they will probably be charged for the subsequent treatment fee.
		2-10-3	Is there any support provided for mental health care? Are there any systems similar to university tutors?	There is counseling service available for the employees, but not for visitors. If there are mental problems at the workplace, we intend to deal with them.
	Radiation exposure	2-11-1	Are there any differences regarding radiation exposure management between people in each accepted position and the employees?	There is no difference in (radiation) limit between the staff and visitors.
	Information management	2-12-1	How is information managed according to each accepted position? Manuals, training, compliance training, equipment management, measures taken when taking out/bringing in information, management of USB memory sticks, etc.	There is a huge volume of guidelines, and people who have access authorization must read them.
		2-12-2	What kind of access authorization is given according to each acceppted position?	No distinctions are made according to the accepted position.
	Intellectual property management	2-13-1	How are intellectual properties such as patents and inventions managed according to each accepted position?	There may be cases where people are constrained by intellectual property clauses in individual project contracts. Patents are limited to a period of 4 years.
	Setting restricted areas	2-14-1	Are there any restricted areas set according to each accepted position?	None.
Research environment enhancement	Use of living quarters, labs, computers	3-1-1	How are the usages of offices, labs and computers allocated according to each accepted position?	We are trying to allocate offices for visitors. They can access the computers.
	Use of the library	3-2-1	What are the library usage hours? Can people in each accepted position use the library? Are there any restrictions? Also, what is the usage status?	It opens at the same time as the start of hours, and can also be used after work hours. Visitors can also use it.
	Procurement of lab equipment	3-3-1	What methods are used to procure lab equipment, etc. for the users, etc.?	The scientists review it through the proposal system. It is also possible to bring in equipment by going through a safety procedure.
	Research paper submission procedure	3-4-1	Are there any procedures to submit research papers according to each accepted position?	-
	Attending meetings, etc. (rights, obligations)	3-5-1	Are there rights and obligations regarding the attendance of meetings, etc. according to each accepted position?	-
	Common spaces such as meeting rooms, etc.	3-6-1	Are there any common spaces such as meeting rooms, etc.? Are they available in each building?	There are 15 meeting rooms, as well as a coffee room, etc.
	Research guidance	3-7-1	What is the system to provide research guidance to people in each accepted positon?	The accepting research facility provides guidance.
Surrounding environment	Lodging facilities, housing (self-managed, contracted, mediated: the same applies below)	4-1-1	Is there any mediation provided for housing rentals or purchasing? Also, is there any support provided regarding purchases of cars, etc.? If so, what are the methods for both cases? (Installation, etc. of spaces, bulletin boards, etc. for mediation or exchange of information among researchers)	We provide support depending on the circumstances, such as when the person has not opened a bank account. There is also a method where we rent an apartment and sublet it. We do not provide information through the internet. There is no support on cars.

	4-1-2	Are there any housing facilities (for short and long term assignments) owned by the research facility for researchers from various countries? If so, what is the size?	There are 60 rooms for short term visitors. We plan to increase the total number of rooms to up to 120.
	4-1-3	In Japan, when researchers from various countries rent housing facilities (residential houses), problems (smell, noise, financial) occur frequently. Have there been any problems when researchers rent housing facilities (residential houses)? Is there any mediation provided?	The police will pobably be called if contractual obligations are violated.
	4-1-4	In Japan, various procedures for living are more complicated compared to Western countries due to the difference in language, and Japanese staff accompany the researchers to perform the procedures to open bank accounts, make arrangements for electricity/gas/water, etc. Is there any similar support provided by your research facility? Or, are there manuals, etc. for living available for researchers from each country?	Support is provided when there are problems. Recently, bank accounts can be opened by presenting a passport or invitation, and a reference is not required.
Children's education (nursery, kindergarten, elementary and junior high schools)	4-2-1	Are there any childcare facilities (nurseries, etc.) available for use? (Is it possible to place children of British (French) researchers? Do the staff speak the language?)	Only the children of employees can be placed.
	4-2-2	Is there any mediation, etc. provided for children of researchers from countries and regions around the world? Are there international schools, etc. available for use? (What is the composition ratio of students from countries other than Britain (France) such as Asia and the Middle East?)	-
	4-2-3	Are there any programs that deal with each country (regarding classes in their native language, history/culture of their home country) and mental health care (if the children are adapting to school), etc.?	-
	4-2-4	What measures are taken in case children of users from countries and regions around the world have taboos against certain food? (Are there any special menus, etc. available?)	-
Cafeteria	4-3-1	What is the language of the cafeteria menu?	English only.
	4-3-2	Does the menu in the cafeteria accommodate multiple cultures? (Are there menus for Muslims and menus with consideration to vegetarians?) Similarly, do the facility stores and community shops provide items that accomodate multiple cultures and religions? (Is there merchandise, etc. for Muslims, Jews, etc.?)	There is a vegetarian menu. We believe there is no special menu that considers religions and cultures.
Welfare and recreation facilities	4-4-1	What are the types of welfare facilities available? Also, can they be used by people in any accepted position? How is guidance being provided?	People can use sports facilities and participate in club activities.
Various guidance and offers	4-5-1	How is information on clothing, food and housing in the community obtained from the community, and communicated to the users, etc.? Also, is there any mediation provided?	A list of good pubs, etc. is posted in the "instrument menue." Ties with the local area are formed there.
	4-5-2	How is information on events in the community also obtained from the community, and communicated to the users, etc.? Also, is there any mediation provided?	We obtain information on events from various places in written form, etc., and show them in racks, etc. to enable the users to obtain the information freely.
	4-5-3	Is there any guidance, etc. provided on tourist information?	Yes.
	4-5-4	Is there any guidance, etc. provided on language schools, etc.?	No. We provide guidance when we are asked.
Emergency response	4-6-1	How is emergency response handled when accidents, etc. occur? What method is used for communication (including the language used for broadcasting within the premises)? What is the method to deal with the local government?	Minor injuries are handled by the Health Management department. If the injury is severe, we call an ambulance.

		4-6-2	Is there any special support provided when accidents, terrorism or large-scale disasters occur within the research facility?	There are commonly used fire equipment and emergency systems, and visitors receive explanations on them. In case of chemical terrorism, people are supposed to remain inside.
Collaboration with the community, public relations, etc.		5-1	What efforts are being made to collaborate with the community and public relations?	Various public relations activities targeted at the local community are performed. They include work with the local schools, opening the research laboratory to the public, events where the staffs invite their friends and family to the research laboratory, science lessons and exhibits in the community, etc.
		5-2	Are the researchers from each country and their families assimilating into the local community? Is there any special support provided in collaboration with the community to researchers from countries and regions around the world and their families, or opportunities to have exchanges with the community (organizations such as exchange associations)? Also, are there any events to teach the community's culture to researchers from various countries, or any events where researchers from various countries can introduce their cultures?	
Opening the facility to the public		6-1	Are there any efforts being implemented to gain the understanding of the community residents, etc.? Are there activities such as opening the facilities to the public?	Facility tour days are set periodically for local residents. A Staff and Family Day was started recently, and the friends and family that the staff brought on that day could tour the facility.
Methods to deal with visitors and inspectors		7-1	What method is being used to deal with visitors and inspectors?	-
Others		8-1	RIKEN of Japan has placed facilities and researchers to use the accelerator facility of RAL. Are there any efforts (such as public relations, etc.) aimed at raising the international prestige of your own facility/research institute by gathering researchers from the U.S., Asia, etc.?	Expansion and enhancement of facilities, such as the construction of the Second Target Station, etc. (A consistent investment strategy that renews the equipment in 1 to 2 years along a plan in line with the change in science) Enhancement of the homepage as public relations.
		8-2	Regarding the acceptance of researchers from foreign countries, are there any efforts, etc. to exchange opinions and tie-up with the government in order to make such acceptance easier?	There is none.

Appendix4: Reference (CERN)

DG-VIP
2010-02-09

ACTIONS INTERNES

Dr Sohei Okada
Executive Director
Japan Atomic Energy Agency

Friday, 12th February 2010

(4 visiteurs)

A noter:
le programme est organisé par l'équipe japonaise d'ATLAS qui a pu prendre contact directement avec votre service.
Certaines actions peuvent donc manquer à cette liste.

Jeudi 11 février 2010

	Drapeaux hissés	Contrôle d'Accès, GS
	Salle de conférence réservée - Salle A, 1er étage, bâtiment 61	S. Schaefer, GS
	Salle de conférence nettoyée juste avant la visite - Salle A, 1er étage, bâtiment 61 utilisée à 09h00	M. Grospiron, GS
09h00	Eau et jus de fruits + pièces sèches sur table (une assiette de 4 pour deux personnes). Café, thé servis (9 pers.) Salle A, 1er étage, bâtiment 61, à 09h00	Restaurant No. 1

Vendredi 12 février 2010

	Drapeaux hissés	Contrôle d'Accès, GS
	Salle de conférence réservée - Salle C, 1er étage, bâtiment 61	S. Schaefer, GS
	Salle de conférence nettoyée juste avant la visite - Salle C, 1er étage, bâtiment 61 utilisée à 16h00	M. Grospiron, GS
	Rétroprojecteur et projecteur pour présentation informatisée ; Ordinateur portable installé avec laser pointer et télécommande à disposition de l'orateur ; assistance technique au début des présentations en salle C, 1er étage, bâtiment 61, à 16h00	Audiovisual support, IT
	J. Purvis envoie sa présentation à T. Shave qui l'installera sur place (peut également venir avec une clé USB, mais prévient T. Shave)	J. Purvis, HR T. Shave, DG
	Présentations prêtes pour le DG et J. Purvis et assistance technique salle C, 1er étage, bâtiment 61, à 16h00	T. Shave, DG
16h00	Eau et jus de fruits + pièces sèches sur table (une assiette de 4 pour deux personnes). Café, thé servis (9 pers.) Salle C, 1er étage, bâtiment 61, à 16h00	Restaurant No. 1

2010-02-09 at 9:49

DG-VIP
2010-02-09

V I S I T P R O G R A M M E

Dr Sohei Okada
Executive Director
Japan Atomic Energy Agency

Thursday, 11th and Friday, 12th February 2010

More on JAEA (4 visitors)

Organisation and contact: T. Kondo, phone: 71276

Thursday, 11th February

09:00 Meeting with the Head of Users' Office (C. Onions, T. Kondo)
Conference room A, building 61/1-017

10:00 Follow-up meeting (T. Kondo, T. Kawamoto)
Conference room A, building 61/1-017

12:00 Lunch at Restaurant 1 with J. Kamiya
Restaurant 1, ground floor, building 501

14:00 Briefing on CERN by T. Kondo
Conference room A, building 61/1-017

14:50 Visit CERN permanent exhibition Microcosm with T. Kondo

15:40 Visit ATLAS Control Room (O. Sasaki, M. Ishino)
LHC Point 1, building 3162

16:25 Visit CERN Control Center (T. Kondo, J. Kamiya)
Building 874, Prévessin site

17:00 Visit COMPASS Experiment Hall (N. Doshita)
Building 888, Prévessin site

17:30 End

Friday, 12th February

10:00 Visit CERN Nursery School (B. Pillionnel)
Building 562

11:15 Visit building 188 (T. Kawamoto)

12:00 Lunch at Restaurant 2
Building 504, 1st floor

14:00 Meeting with Site Services and Logistics Section (M. Tiirakari, I. Mardirossian)
Building 73/2-027

16:00 General introduction to CERN's activities by the Director-General, R. Heuer
F. Pauss, J. Ellis, J. Purvis and K. Thomas-Chevreux present
Conference room C, 1st floor, building 61

16:15 Questions and answers

16:30 CERN administrative system presentation by J. Purvis and K. Thomas-Chevreux

16:45 Questions and answers

17:00 End of meeting

Participants

1.Dr Sohei Okada	Executive Director, JAEA	http://www.jaea.go.jp/english/about/board-of-directors.shtml
2.Mr Kazuichiro Hashimoto	Director of International Affairs Department, JAEA	
3.Ms Junko Hoshino	Deputy General Manager of International Fellowship section	
4.Mr Hirobumi Ebisawa	Officer of International Fellowship section	

CERN participants

Dr John Ellis	Adviser for Non-Member States
Prof. Rolf Heuer	Director-General
Mrs Isabelle Mardirossian	Site engineering and management Deputy Group Leader
Mr Chris Onions	Head of CERN Users' Office
Prof. Felicitas Pauss	Coordinator for External Relations
Mrs Brigitte Pillionnel	CERN Nursery School Director
Mr James Purvis	Human Resources Departmental Planning Officer FAS Programmes, Informatics and Monitoring, Recruitment Group Leader
Mrs Katharine Thomas-Chevreux	Human Resources Department
Dr Matti Tiirakari	General Services Deputy Departement Head

CERN Users

Dr Norihiro Doshita	Yamagata University, COMPASS Collaboration
Dr Masaya Ishino	KEK, ATLAS Collaboration
Dr Junichiro Kamiya	JAEA/J-PARC, LHC
Prof. Tatsuo Kawamoto	Universitx of Tokyo, ATLAS Collaboration
Prof. Takahiko Kondo	KEK, ATLAS Collaboration
Dr Osamu Sasaki	KEK, ATLAS COllaboration

Useful links

CERN	CH-1211 Genève 23, Central telephone exchange + 41 22 767 61 11
How to get to CERN	
Works on road from Geneva	

Contact

VIP and Protocol Office	+ 41 76 487 0437 or + 41 76 487 4481

Appendix5: Reference (RAL)

Science & Technology Facilities Council
Rutherford Appleton Laboratory

VISITOR REQUIREMENT FORM

This form is not applicable to Facility Users who are solely attending experiments and people who will be on STFC payroll.

1	STFC Dept:	STFC Sponsor:

2 Details of Visitor

Title		Initials		Given Name		Surname	
Institution : Address:						Postcode	
Phone – Work				E-mail		Nationality	
Phone – Home				Mobile		Year of Birth	

3 State Purpose of visit at STFC/RAL:

Inclusive visit dates :	From:	To:

4 SITE ACCESS/SHE

Photo Pass:	Radiation Film Badge:	Use Experimental Hall:

5 Workstation Requirement

Desk Required : Preferred Location: R3	Permanent Desk	Hot Desk	
Telephone: Yes/No Landline		Computer: Yes/No Company	

6 Computer Access

USER ID YES/No	State Computing Facilities Required Yes/No	STFC EMAIL BOX YES/No

ACCOMMODATION REQUIREMENT

7

Travel Funding Source (Please tick applicable Box)	STFC	Visitor/ Sponsor	Visitor to pay though STFC by Project Code
Travel/Flights - Single ☐ Return ☐			
Airport Transfer			
Hire Car (Including Petrol/Mileage & Admin Costs)			
Allowances (if any)			

8

Accommodation funding source (Please tick applicable box):

Total Monthly Accommodation Allocation, if known : £

	STFC	Visitor	Visitor pays Through STFC by Project Code
Rent			
Security Deposit			☐ *If payment of Security Deposit by tenant is waived for any reason, any damages, breakage or breach of contract will be charged to the project code.*
Water			
Telephone (Landline only)			
Internet (Broadband)			
TV License			
Council Tax			
Gas			
Electricity			

Total Monthly Accommodation Allocation, if known: £ _____

9

Funding/Support Authorisation:

State Funding Institute/Company; if not STFC _____

If STFC is funding, give Project Code _____

Signing powers should be given to R. Browning and E. Sanders against the above project code. YES ☐ NO ☐

10

I am responsible for the above during stated period of visit to the facility.

Signature _____ Date _____

Name in Capitals _____ Position _____

Please send completed form to RAL Visitor Services R3, G11/15. A scanned form in pdf format could be forwarded to FBULTA@rl.ac.uk or evelyn.sanders@stfc.ac.uk

11

Division Head

Name: _____ Signature: _____ Date: _____

Appendix6: Pictures (CERN)

1 Geneva Cornavin station (CERN)

2 To go to CERN, take tram 16 and transfer to a bus whose last stop is CERN. The tram line will be extended to CERN in 2011.

3 Flags of CERN member states (20)

4 CERN's Famous globe symbolizing scientific and technological revolution

5 Bldg.33 (Reception, Permanent exhibition hall and Store)

6 Reception and Store

7 Store

8 Key chains using cable and ballpoint pens with CERN's log on them

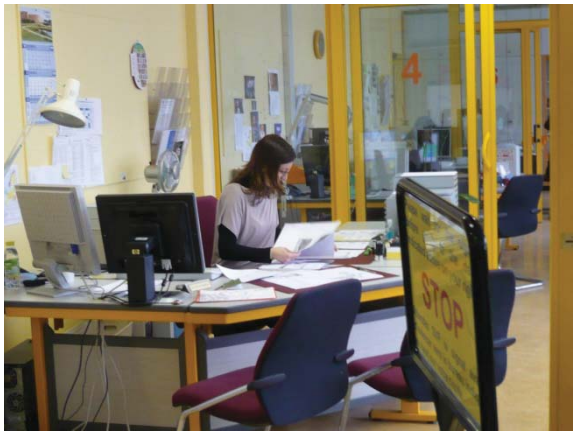
9 LHC（Circumference27 ㎞, Depth100m）

10 Library

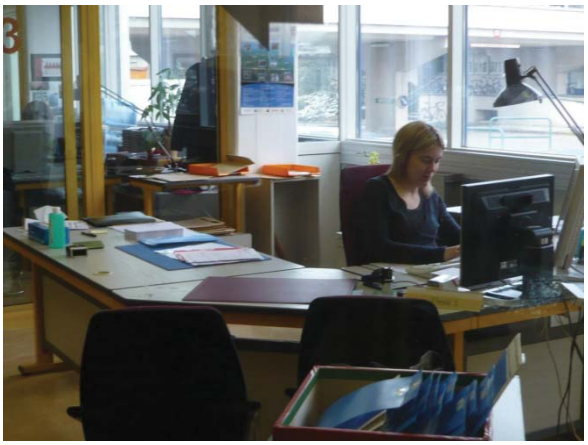
11 Library

12 Users' Office

13 Users' Office



14 Users' Office

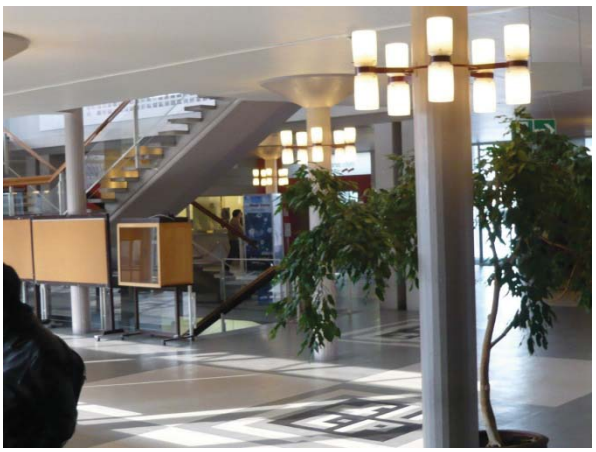


15 Users' Office

16 PCs placed at the hallway by the Users' Office

17 Photographs of the winners of Nobel Prize

18 The 1st Canteen (Bldg.501) opens 7:00 – 25:00 every day. A store, bank and travel agency at the back.



19 The 1st Canteen

20 The 1st Canteen

21 The 1st Canteen

22 A corner of the 1st Canteen

23 Outside space of the 1st Canteen

24 The 2nd Canteen (Bldg.504) ,open on weekdays at lunch time, offers a variety of menus.

25 The 2nd Canteen

26 The 2nd Canteen

27 The 2nd Canteen

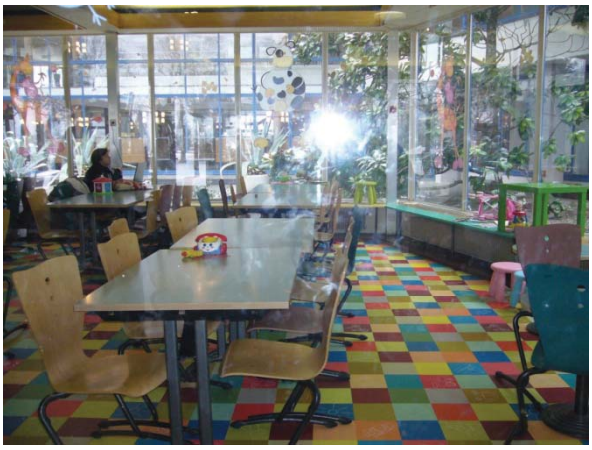
28 The 2nd Canteen

29 A vineyard stretches over the 2nd Canteen

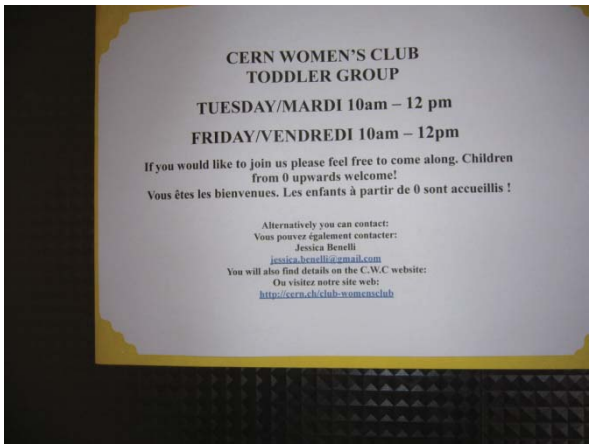
30 Bulletin Board at the 2nd Canteen

31　Bulletin Board at the 2nd Canteen

32　Play room attached to the canteen



33　Information of CERN Women's Club Toddler Group



34　Nursery, Kindergarten

35　Kindergarten

36　CERN Hostel（Bldg.38）for short stay

37　CERN Hostel（Bldg.39）for short stay

38　CERN Hostel（Bldg. 41）for short stay

39　Housing Office（Weekdays 7：30-19：30, Saturday and Sunday 9：00-13：00　Keys can be received at the guard station during outside hours.）

40　Twin room

41 Twin room

42　Single room

43 Single room

44 Single room

45 Shared kitchen on each floor

46 Shared kitchen on each floor

47 Shared kitchen on each floor

48 A room for two

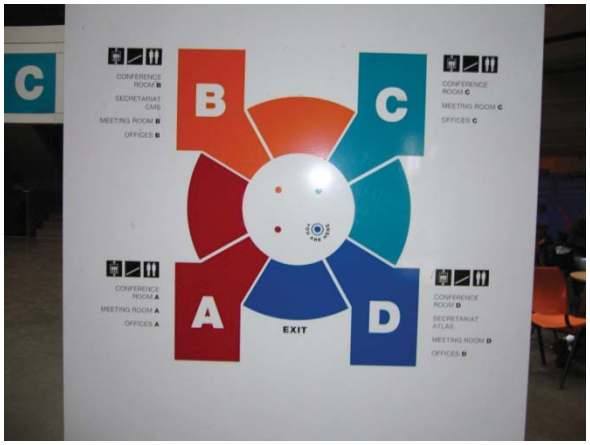
49　Shared shower room

50　Shared shower room

51　Building for ATRAS users（offices and rooms）

Bldg.40

52　Plan of Bldg.40



53　Five-story building with open ceiling space at the center

54　Refreshment section on the 1st floor

55 Refreshment section on the 1st floor

56 Refreshment section on the 1st floor

57 Plaque given to Hamamatsu by CERN in honor of its contribution to the detector

58 Room of the Tokyo University

59 Room of the Tokyo University

60 CERN will dispose of unwanted materials put in this container.

61　The building containing the Tokyo University

62　Equipment such as an accelerator was carried through this building to the depth of 100 meters below ground.

63　ID card for each facility

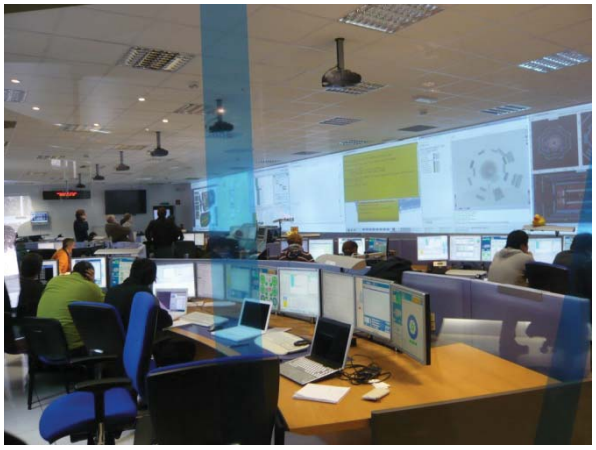
64　Visitor's card

65　Gate（To pass through it, hold the ID card over the reader.）

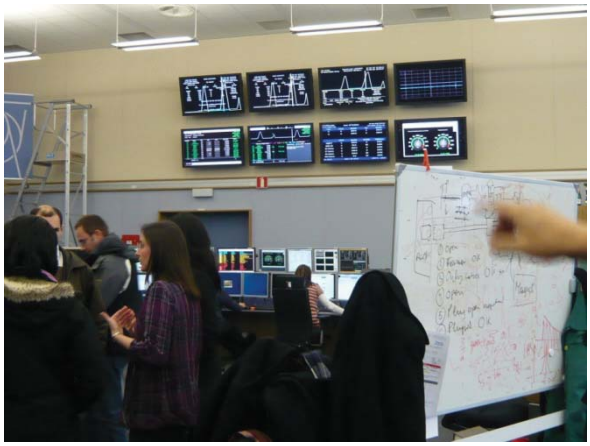
66　ATRAS Experiment (Particle experiment)

Control room　About 13 people are serving around the clock on three shifts.

67　ATRAS Experiment（Particle experiment）
Control room



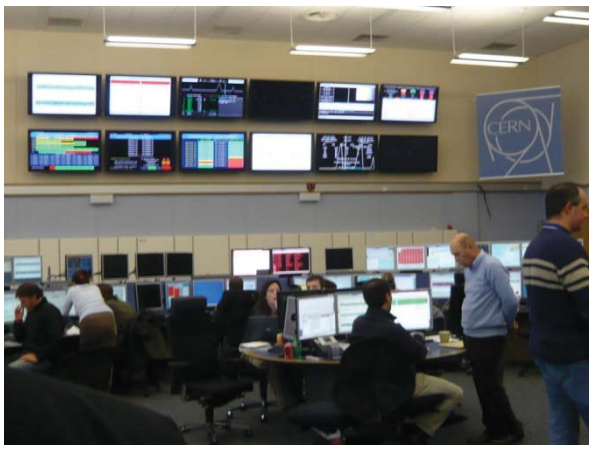
68　CERN Control Center



69　CERN Control Center

70　CERN Control Center

71　CERN Control Center



72　COMPAS Experiment (Nucleus experiment) facility

Appendix7: Pictures (ITER)

1 ITER Organization

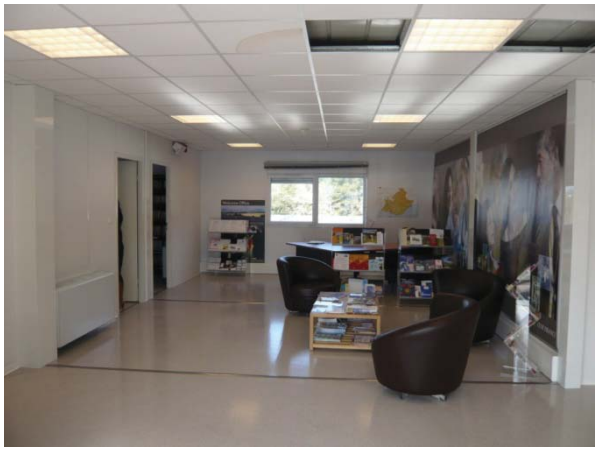
2 Guard station

3 Guard station of ITER Organization : Visitors have to announce themselves here and leave their passports.

4 ITER Head-office building

5 Outside of CEA Welcome Office

6 Inside of CEA Welcome Office: There is a common area to read local information magazines, etc.



7 ITER Construction site: Land leveling was completed and construction of facilities including Poloidal Fieald Building and Tokamak Building will be started.

8 ITER Construction site

9 A model of ITER Construction site

10 Model of ITER Construction site

11 Castle near the site: Used as accommodations for visitors of ITER and for various meetings

Appendix8: Pictures (RAL)

1 Rutherford Appleton Laboratory (RAL)

2 The front gate (Seen from inside)

3 Reception. Visitors have to announce themselves here and receive the entrance card here.

4 Reception

5 Reception

6 ISIS building

7 Canteen

8 Canteen

9 Canteen

10 ATM placed in the canteen

11 Canteen

12

13　Kindergarten（Back side）

14　Entrance of the kindergarten

15　Accommodation facility

16　Accommodation facility (Reception)

17　Accommodation facility

18

19 Accommodation facility

20 Accommodation facility (Lavatory)

21 Accommodation facility
(Shower room)

22 Accommodation facility (Dining hall)

23 Accommodation facility (Dining hall)

24 Accommodation facility (Dining hall)

25 Accommodation facility
(Recreation amenities)

26 A model of RAL site

27 RIKEN Muon facility

28 An entrance card for a visitor

29 2nd Target station under construction

30 2nd Target station under construction

31 2nd Target station under construction

32

33

34

35

36 Front gate of RAL

国際単位系（SI）

表１．SI 基本単位

基本量	SI 基本単位	
	名称	記号
長さ	メートル	m
質量	キログラム	kg
時間	秒	s
電流	アンペア	A
熱力学温度	ケルビン	K
物質量	モル	mol
光度	カンデラ	cd

表２．基本単位を用いて表されるSI組立単位の例

組立量	SI 基本単位	
	名称	記号
面積	平方メートル	m^2
体積	立法メートル	m^3
速さ，速度	メートル毎秒	m/s
加速度	メートル毎秒毎秒	m/s^2
波数	毎メートル	m^{-1}
密度，質量密度	キログラム毎立方メートル	kg/m^3
面積密度	キログラム毎平方メートル	kg/m^2
比体積	立方メートル毎キログラム	m^3/kg
電流密度	アンペア毎平方メートル	A/m^2
磁界の強さ	アンペア毎メートル	A/m
量濃度(a)，濃度	モル毎立方メートル	mol/m^3
質量濃度	キログラム毎立法メートル	kg/m^3
輝度	カンデラ毎平方メートル	cd/m^2
屈折率(b)	（数字の） 1	1
比透磁率(b)	（数字の） 1	1

(a) 量濃度（amount concentration）は臨床化学の分野では物質濃度（substance concentration）ともよばれる。
(b) これらは無次元量あるいは次元１をもつ量であるが、そのことを表す単位記号である数字の１は通常は表記しない。

表３．固有の名称と記号で表されるSI組立単位

組立量	SI 組立単位			
	名称	記号	他のSI単位による表し方	SI基本単位による表し方
平面角	ラジアン(b)	rad	1 (b)	m/m
立体角	ステラジアン(b)	sr(c)	1 (b)	m^2/m^2
周波数	ヘルツ(d)	Hz		s^{-1}
力	ニュートン	N		m kg s^{-2}
圧力，応力	パスカル	Pa	N/m^2	m^{-1} kg s^{-2}
エネルギー，仕事，熱量	ジュール	J	N m	m^2 kg s^{-2}
仕事率，工率，放射束	ワット	W	J/s	m^2 kg s^{-3}
電荷，電気量	クーロン	C		s A
電位差（電圧），起電力	ボルト	V	W/A	m^2 kg s^{-3} A^{-1}
静電容量	ファラド	F	C/V	m^{-2} kg^{-1} s^4 A^2
電気抵抗	オーム	Ω	V/A	m^2 kg s^{-3} A^{-2}
コンダクタンス	ジーメンス	S	A/V	m^{-2} kg^{-1} s^3 A^2
磁束	ウエーバ	Wb	Vs	m^2 kg s^{-2} A^{-1}
磁束密度	テスラ	T	Wb/m^2	kg s^{-2} A^{-1}
インダクタンス	ヘンリー	H	Wb/A	m^2 kg s^{-2} A^{-2}
セルシウス温度	セルシウス度(e)	℃		K
光束	ルーメン	lm	cd sr(c)	cd
照度	ルクス	lx	lm/m^2	m^{-2} cd
放射性核種の放射能(f)	ベクレル(d)	Bq		s^{-1}
吸収線量, 比エネルギー分与, カーマ	グレイ	Gy	J/kg	m^2 s^{-2}
線量当量, 周辺線量当量, 方向性線量当量, 個人線量当量	シーベルト(g)	Sv	J/kg	m^2 s^{-2}
酸素活性	カタール	kat		s^{-1} mol

(a)SI接頭語は固有の名称と記号を持つ組立単位と組み合わせても使用できる。しかし接頭語を付した単位はもはやコヒーレントではない。
(b)ラジアンとステラジアンは数字の１に対する単位の特別な名称で、量についての情報をつたえるために使われる。実際には、使用する時には記号radおよびsrが用いられるが、習慣として組立単位としての記号である数字の１は明示されない。
(c)測光学ではステラジアンという名称と記号srを単位の表し方の中に、そのまま維持している。
(d)ヘルツは周期現象についてのみ、ベクレルは放射性核種の統計的過程についてのみ使用される。
(e)セルシウス度はケルビンの特別な名称で、セルシウス温度を表すために使用される。セルシウス度とケルビンの単位の大きさは同一である。したがって、温度差や温度間隔を表す数値はどちらの単位で表しても同じである。
(f)放射性核種の放射能（activity referred to a radionuclide）は、しばしば誤った用語で"radioactivity"と記される。
(g)単位シーベルト（PV,2002,70,205）についてはCIPM勧告2（CI-2002）を参照。

表４．単位の中に固有の名称と記号を含むSI組立単位の例

組立量	SI 組立単位		
	名称	記号	SI 基本単位による表し方
粘度	パスカル秒	Pa s	m^{-1} kg s^{-1}
力のモーメント	ニュートンメートル	N m	m^2 kg s^{-2}
表面張力	ニュートン毎メートル	N/m	kg s^{-2}
角速度	ラジアン毎秒	rad/s	m m^{-1} s^{-1}=s^{-1}
角加速度	ラジアン毎秒毎秒	rad/s^2	m m^{-1} s^{-2}=s^{-2}
熱流密度，放射照度	ワット毎平方メートル	W/m^2	kg s^{-3}
熱容量，エントロピー	ジュール毎ケルビン	J/K	m^2 kg s^{-2} K^{-1}
比熱容量，比エントロピー	ジュール毎キログラム毎ケルビン	J/(kg K)	m^2 s^{-2} K^{-1}
比エネルギー	ジュール毎キログラム	J/kg	m^2 s^{-2}
熱伝導率	ワット毎メートル毎ケルビン	W/(m K)	m kg s^{-3} K^{-1}
体積エネルギー	ジュール毎立方メートル	J/m^3	m^{-1} kg s^{-2}
電界の強さ	ボルト毎メートル	V/m	m kg s^{-3} A^{-1}
電荷密度	クーロン毎立方メートル	C/m^3	m^{-3} sA
表面電荷	クーロン毎平方メートル	C/m^2	m^{-2} sA
電束密度，電気変位	クーロン毎平方メートル	C/m^2	m^{-2} sA
誘電率	ファラド毎メートル	F/m	m^{-3} kg^{-1} s^4 A^2
透磁率	ヘンリー毎メートル	H/m	m kg s^{-2} A^{-2}
モルエネルギー	ジュール毎モル	J/mol	m^2 kg s^{-2} mol^{-1}
モルエントロピー, モル熱容量	ジュール毎モル毎ケルビン	J/(mol K)	m^2 kg s^{-2} K^{-1} mol^{-1}
照射線量（X線及びγ線）	クーロン毎キログラム	C/kg	kg^{-1} sA
吸収線量率	グレイ毎秒	Gy/s	m^2 s^{-3}
放射強度	ワット毎ステラジアン	W/sr	m^4 m^{-2} kg s^{-3}=m^2 kg s^{-3}
放射輝度	ワット毎平方メートル毎ステラジアン	$W/(m^2$ sr)	m^2 m^{-2} kg s^{-3}=kg s^{-3}
酵素活性濃度	カタール毎立方メートル	kat/m^3	m^{-3} s^{-1} mol

表５．SI 接頭語

乗数	接頭語	記号	乗数	接頭語	記号
10^{24}	ヨタ	Y	10^{-1}	デシ	d
10^{21}	ゼタ	Z	10^{-2}	センチ	c
10^{18}	エクサ	E	10^{-3}	ミリ	m
10^{15}	ペタ	P	10^{-6}	マイクロ	μ
10^{12}	テラ	T	10^{-9}	ナノ	n
10^9	ギガ	G	10^{-12}	ピコ	p
10^6	メガ	M	10^{-15}	フェムト	f
10^3	キロ	k	10^{-18}	アト	a
10^2	ヘクト	h	10^{-21}	ゼプト	z
10^1	デカ	da	10^{-24}	ヨクト	y

表６．SIに属さないが、SIと併用される単位

名称	記号	SI 単位による値
分	min	1 min=60s
時	h	1h =60 min=3600 s
日	d	1 d=24 h=86 400 s
度	°	1°=(π/180) rad
分	’	1’=(1/60)°=(π/10800) rad
秒	”	1”=(1/60)’=(π/648000) rad
ヘクタール	ha	$1ha=1hm^2=10^4m^2$
リットル	L, l	$1L=11=1dm^3=10^3cm^3=10^{-3}m^3$
トン	t	$1t=10^3$ kg

表７．SIに属さないが、SIと併用される単位で、SI単位で表される数値が実験的に得られるもの

名称	記号	SI 単位で表される数値
電子ボルト	eV	$1eV=1.602\ 176\ 53(14)\times10^{-19}J$
ダルトン	Da	$1Da=1.660\ 538\ 86(28)\times10^{-27}kg$
統一原子質量単位	u	1u=1 Da
天文単位	ua	$1ua=1.495\ 978\ 706\ 91(6)\times10^{11}m$

表８．SIに属さないが、SIと併用されるその他の単位

名称	記号	SI 単位で表される数値
バール	bar	1 bar=0.1MPa=100kPa=10^5Pa
水銀柱ミリメートル	mmHg	1mmHg=133.322Pa
オングストローム	Å	1 Å=0.1nm=100pm=10^{-10}m
海里	M	1 M=1852m
バーン	b	$1\ b=100fm^2=(10^{-12}cm)2=10^{-28}m^2$
ノット	kn	1 kn=(1852/3600)m/s
ネーパ	Np	SI単位との数値的な関係は、対数量の定義に依存。
ベル	B	
デジベル	dB	

表９．固有の名称をもつCGS組立単位

名称	記号	SI 単位で表される数値
エルグ	erg	$1\ erg=10^{-7}$ J
ダイン	dyn	$1\ dyn=10^{-5}$N
ポアズ	P	1 P=1 dyn s cm^{-2}=0.1Pa s
ストークス	St	1 St =$1cm^2$ s^{-1}=$10^{-4}m^2$ s^{-1}
スチルブ	sb	1 sb =1cd cm^{-2}=10^4cd m^{-2}
フォト	ph	1 ph=1cd sr cm^{-2} 10^4lx
ガル	Gal	1 Gal =1cm s^{-2}=$10^{-2}ms^{-2}$
マクスウェル	Mx	1 Mx = 1G cm^2=10^{-8}Wb
ガウス	G	1 G =1Mx cm^{-2} =10^{-4}T
エルステッド(c)	Oe	1 Oe≙ $(10^3/4\pi)$A m^{-1}

(c) ３元系のCGS単位系とSIでは直接比較できないため、等号「 ≙ 」は対応関係を示すものである。

表10．SIに属さないその他の単位の例

名称	記号	SI 単位で表される数値
キュリー	Ci	$1\ Ci=3.7\times10^{10}Bq$
レントゲン	R	$1\ R = 2.58\times10^{-4}C/kg$
ラド	rad	$1\ rad=1cGy=10^{-2}Gy$
レム	rem	$1\ rem=1\ cSv=10^{-2}Sv$
ガンマ	γ	1γ=1 nT=10-9T
フェルミ		1フェルミ=1 fm=10-15m
メートル系カラット		1メートル系カラット = 200 mg = 2×10-4kg
トル	Torr	1 Torr = (101 325/760) Pa
標準大気圧	atm	1 atm = 101 325 Pa
カロリー	cal	1cal=4.1858J（「15℃」カロリー），4.1868J（「IT」カロリー）4.184J（「熱化学」カロリー）
ミクロン	μ	1 μ =1μm=10^{-6}m

（第8版，2006年改訂）

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