

4. Activities

The activities of the CRIEPI in FY 2014 are outlined below.

1 Human Resources

The CRIEPI employs 796 people as of 31st March, 2015. 697 people are employed in research fields while 99 people are involved in clerical work. Fig. 1 shows the breakdown of researchers working in diverse fields. 401 people working at the CRIEPI have a Ph.D. Of these, 73% and 11% have an engineering and science background respectively.

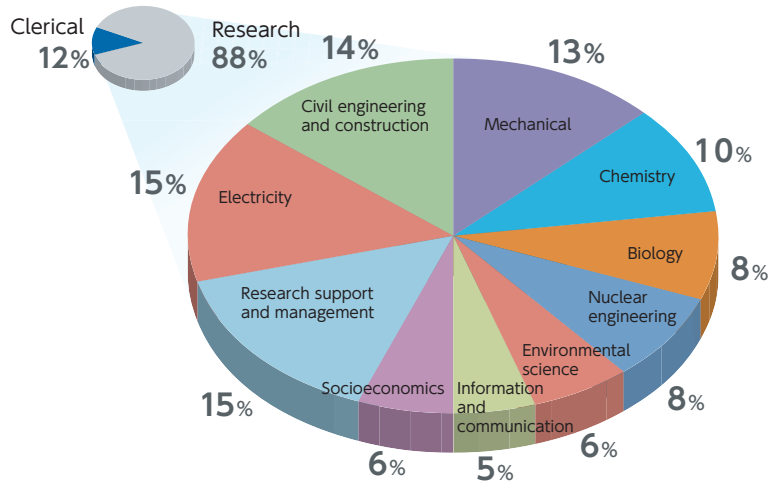


Fig. 1: Staff breakdown

2 Research Reports

A total of 453 CRIEPI research reports were produced in FY 2014. Of these, 270 were research reports and 183 were reports on funded research by electric power companies, the central government and others. Fig. 2 shows the breakdown of reports by subject field. The titles of the research reports, etc. which are publicly accessible are listed in Appendix (1). The body text of these research reports and corresponding leaflets*1 can be downloaded from the CRIEPI's website.

*1The timing of leaflet publication may differ from the publication timing of the corresponding report.

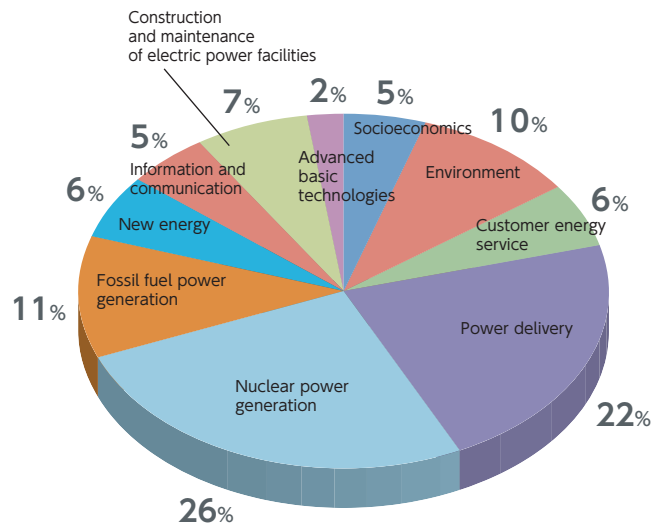


Fig. 2: Breakdown of reports by subject field

3 Presentation of Research Papers

A total of 1,412 research papers were presented in bulletins of academic societies and academic journals and at academic conferences. Of these, 350 papers were peer reviewed. Fig. 3 shows the breakdown of research papers by subject field. The titles of these papers are contained in the research paper database under "Research Results/Reports, etc." on the CRIEPI's website.

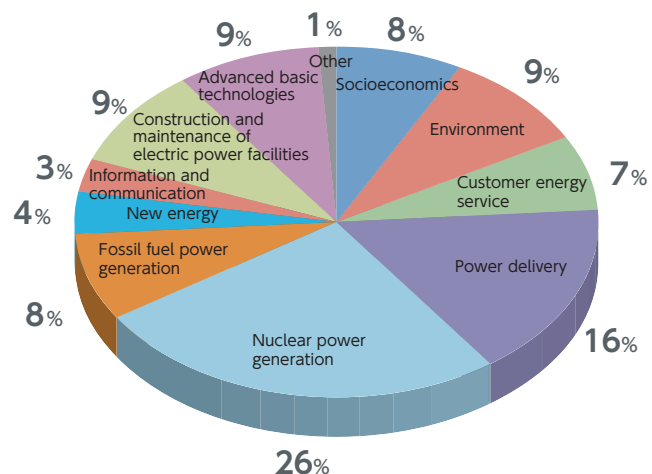


Fig. 3: Breakdown of research papers by subject field

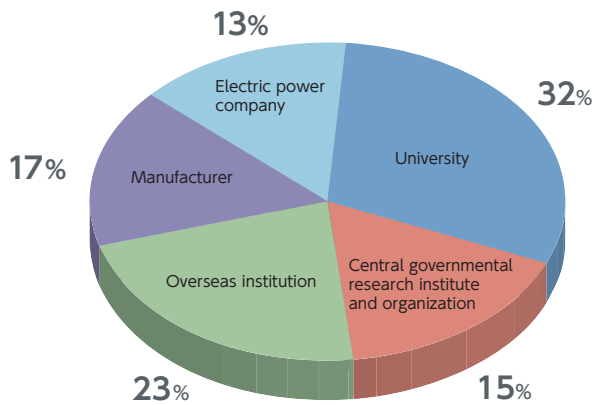


Fig. 4: Classification of research partners

4 Research Cooperation / Interchanges

4-1 Joint Research

Joint research projects were conducted 181. As shown in Fig. 4, universities and central governmental research institutes, etc. accounted for 32% and 15% of the research partners respectively.

4-2 Main International Cooperation/ Interchange Schemes

CRIEPI has been advancing joint research, information exchange and human interaction with a number of research institutes overseas. Fig. 5 shows the main overseas institutes with which CRIEPI has concluded international agreements for cooperation. Table 1 (p.104) lists the main partners of CRIEPI for international cooperation / interchange.

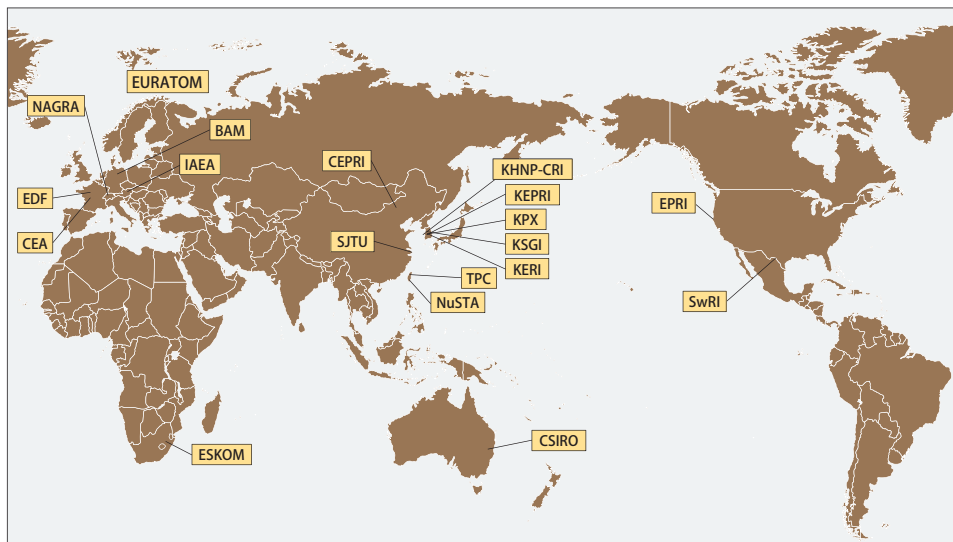


Fig. 5: Main partners for research cooperation

The European Atomic Energy Community (EURATOM) is based in Europe.

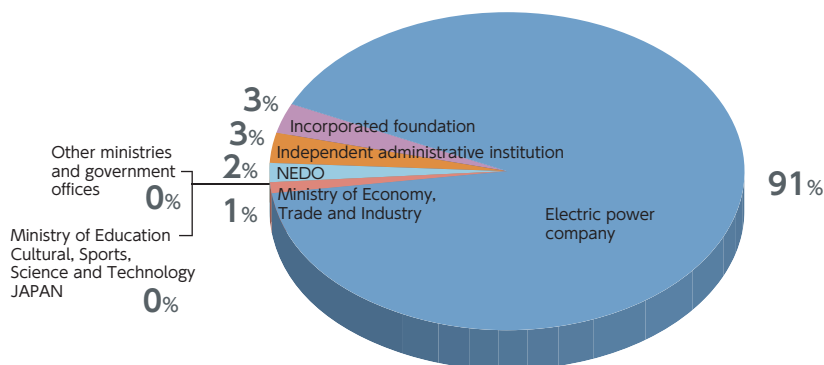


Fig. 6: The consigned research and breakdown of the consignor of the consulting

4-3 Consigned research and consulting

There were 693 cases of consigned research. A breakdown of the consignor of the consigned research is shown in Fig. 6. There were 25 cases of consulting.

4. Record of Activities The following is a summary

Table 1 Main international cooperation/interchange partners

Main Partners for Research Cooperation Agreement

Asia

Korea Electric Power Research Institute (KEPRI)	China Electric Power Research Institute (CEPRI)
Korea Electrotechnology Research Institute (KERI)	Shanghai Jiao Tong University (SJTU), China
Korea Power Exchange (KPX)	Taiwan Power Company (TPC)
Korea Smart Grid Institute (KSGI)	Nuclear Science and Technology Association of Taiwan (NuSTA)
Korea Hydro and Nuclear Power Company Central Research Institute (KHNP-CRI)	

North America

Electric Power Research Institute (EPRI)	Southwest Research Institute (SwRI)
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Europe

European Atomic Energy Community (EURATOM), EU	Électricité de France (EDF)
National Cooperative for the Disposal of Radioactive Waste (NAGRA), Switzerland	Federal Institute for Materials Research and Testing (BAM), Germany
French Atomic Energy Commission (CEA)	International Atomic Energy Agency (IAEA), Austria

Oceania

Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia

Africa

ESKOM, South Africa

Main Partners for Joint Research in Progress

Asia

Taiwan Power Research Institute (TPRI)	Korea Institute of Nuclear Security (KINS)
Korea Atomic Energy Research Institute (KAERI)	Korea University

North America

Electric Power Research Institute (EPRI)	United States Nuclear Regulatory Commission (NRC)
Idaho National Laboratory (INL)	National Institute of Standards and Technology (NIST)
National Center for Atmospheric Research (NCAR)	Atomic Energy of Canada Limited (AECL)
United States Department of Energy (DOE)	

Europe

French Atomic Energy Commission (CEA)	European Atomic Energy Community (EAEC/EURATOM), EU
Électricité de France (EDF)	Institute for Transuranium Elements (ITU), Germany
National Agency for Radioactive Waste Management (ANDRA), France	Gesellschaft für Nuklear-Service mbH (GNS), Germany
Institute de Radioprotection et de Sécurité Nucléaire (IRSN), France	Friedrich Schiller University Jena, Germany
Swedish Nuclear Fuel and Waste Management Company (SKB)	Leibniz Institute for Solid state and Materials Research (IFW), Dresden, Germany
Studsvik Nuclear AB, Sweden	Gesellschaft für Anlagen – und Reaktorsicherheit mbH (GRS), Germany
National Cooperative for the Disposal of Radioactive Waste (NAGRA), Switzerland	Jacobs University Bremen, Germany
Comenius University in Bratislava, Slovakia	Polytechnic University of Turin, Italy
Studiecentrum voor Kernenergie - Centre d'étude de l'Energie Nucléaire (SCK · CEN)	National Research Council, Italy
Organization for Economic Co-operation and Development/Nuclear Energy Agency (OECD/NEA)	University of Twente, Netherlands
European Technology Development Ltd. (ETD), UK	Nuclear Research and Consultancy Group (NRG), Netherlands
Institute for Energy Technology (IFE), Norway	

Other (involvement of institutes from multiple countries)

Mont Terri Consortium	Halden Reactor Project
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Participation in International Organizations

International Atomic Energy Agency (IAEA), Austria	World Nuclear Association (WNA)
Union of the Electricity Industry (EURELECTRIC)	International Electric Research Exchange (IERE)
Association of Electricity Supply Industry of East Asia and the Western Pacific (AESIEAP)	Electromagnetic Transients Program-Development Coordination Group (EMTP-DCG) Committee

of the activities that the CRIEPI was engaged in FY 2014.

5 Forums, Seminars and Other Events

The following forums, seminar and open laboratory were organized in FY2014.

- Research Results Debriefing Session 2014
"For Coexistence with Limited Fuel Resources and the Environment"
May 22th, 2014, IINO Hall, Tokyo
- Open Laboratory
May 24th, 2014, Akagi Testing Center
October 4th, 2014, Abiko Area
October 18th, 2014, Yokosuka Area
October 26th, 2014, Komae Area

6 Industrial Property Rights

The patent registration and the breakdown of each field of application are shown in Fig. 7 and Fig. 8 respectively. 115 patents were registered and 84 patent applications were made in FY 2014. 52 patents or know-how were newly licensed in FY 2014.

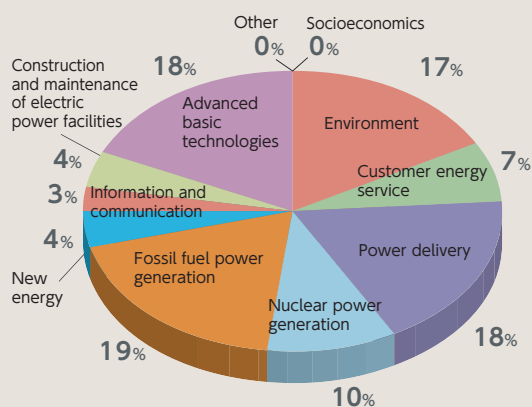


Fig. 7: The breakdown according to the field of the patent registration

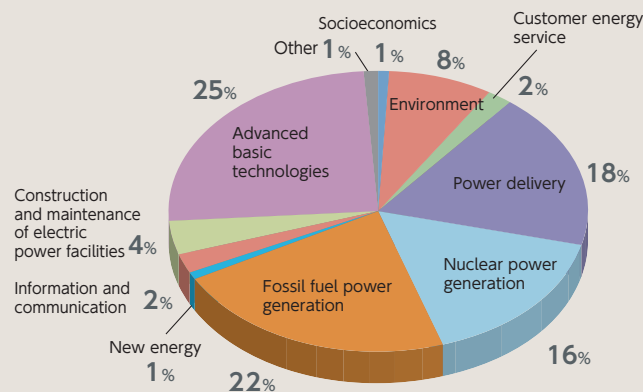


Fig. 8: The breakdown according to the field of the patent application

7 Software

The number of new software registrations and the number of new licenses awarded were 78 and 440 (1978 copies) respectively. Main software with much number of the licensing is shown in Appendix (2).

CRIEPI's home page is a free and publicly accessible service. The "CRIEPI's World Wide Information Service" (<http://criepi.denken.or.jp/>) provides access to the summaries of a number of non-confidential research documents, as well as publications such as "CRIEPI News".