



CERN – J-PARC Collaboration meeting

18.12.2013

Reminder of Terms of the Agreement



Arrangement KN 1839/BE

ARTICLE 1 OBJECTIVE

The objective of this Arrangement is to foster research and development in the fields of high intensity proton accelerators. Cooperation between the Parties shall be directed toward finding solutions to common problems, and to exchanging information developed during the resolution of these problems. The cooperation shall be on the basis of mutual benefit, equality, and reciprocity.

FOR THE EUROPEAN
ORGANIZATION FOR NUCLEAR
RESEARCH

Rolf-Dieter Heuer
Director-General

Date: 15 March 2011

FOR THE HIGH ENERGY
ACCELERATOR RESEARCH
ORGANIZATION AND THE JAPAN
ATOMIC ENERGY AGENCY

Shoji Nagamiya
Director, J-PARC Center

Date: 8 April 2011

Validity until April 2016



Scope of the Arrangement

1. **Beam dynamics studies in** the domain of high energy, high intensity hadron linacs, including benchmarking of beam simulation codes and development of end-to-end simulations from source to target;
2. The design, construction and **development of RF accelerating structures, those** adopting the warm technology, like the RFQ, as well as those using the superconducting technology, like with multi-cell elliptic cavities;
3. The design and **development of RF beam control systems, for** the low-level control and high power RF systems;
4. The definition and **development of beam commissioning techniques** and strategies, in order to characterize the accelerated beams at low and high energy levels, including **information exchange about beam instrumentation and** measurement techniques.
5. Other related activities agreed by the Parties in writing.



Forms of Cooperation

1. Deployment or exchange of staff for agreed periods of time for participation in experiments, analysis, design, manufacturing and R&D activities;
2. Exchange or provision of samples, materials, instruments and components for experiments, testing, manufacturing and evaluation;
3. Exchange of information and data, including results and methods of R&D and software;
4. Joint research and development studies;
5. Organization of seminars, workshops and other meetings (other than the meetings referred to in paragraph 5.3 hereunder); and
6. Utilization of research instruments and other items owned or operated by the other Party, shall be subject to separate arrangement between the parties.



Any ideas ?

1. Guidelines for a commissioning strategy and machine protection during beam commissioning;
2. Exchange of information for the development of a risk analysis document concerning the Linac4 accelerator;
3. Ion source developments and characterization;
4. Use of the beam instrumentation during beam commissioning, like RF structure phasing by TOF measurements or use of laser wire monitors...