ARW 2024
Accelerator Reliability Workshop
MAX IV and ESS are Excited and Pleased to Announce their Joint Hosting

Contribution ID: **121** Type: **Oral**

LIPAc procurement policy for upgraded sub-systems and maintenance services

Monday, 24 June 2024 11:30 (30 minutes)

LIPAc, the Linear IFMIF Prototype Accelerator, was developed under the IFMIF/EVEDA Project, which is part of the Broader Approach (BA) agreement signed between EURATOM and the Japanese Government in 2007. The IFMIF accelerator is designed to provide an accelerator-based D-Li neutron source that produces high-intensity neutron fluxes with the appropriate energy spectrum, aimed at characterizing materials for future fusion reactors. The accelerator's concept is tested through the design, manufacturing, installation, and commissioning of a 1:1-scale prototype accelerator up to the first cryomodule, which represents the most challenging part from a beam dynamics standpoint. The concept demonstration follows a tiered approach with four configurations and five phases to validate the unprecedented performance of the accelerator, initiated 10 years ago. Significant feedback has been gathered from various stages of LIPAc's development, including initial procurements, installation, checkout tests, and commissioning. Based on this, new procurements, which are in-kind contributions of key upgraded subsystems — such as the ECR source and the RFQ RF power system — along with additional services for maintenance and spare parts management, are being implemented to enhance both the reliability and availability of the facility. This presentation will discuss, through examples, the practices and policies applied throughout the lifecycle of the procurements to ensure that the facility's maintainability, reliability, and availability are enhanced. Additionally, it will present the progress of procurement activities that are carried within the project.

Primary authors: Mr DZITKO, Hervé (Fusion for Energy); Mr CARIN, Yann (IFMIF/EVEDA Project Team); Mr CISMONDI, Fabio (Fusion for Energy); Mr GEX, Dominique (IFMIF/EVEDA Project Team); JOKINEN, Antti (Fusion for Energy (F4E)); KASUGAI, Atsushi (QST); KONDO, Keitaro (QST); MASUDA, Kai (National Institute for Quantum Science and Technology (QST)); Mr SCANTAMBURLO, Francesco (IFMIF/EVEDA Project Team)

Presenter: Mr DZITKO, Hervé (Fusion for Energy)

Session Classification: Reliability during Procurement, Installation, Commissioning, and Upgrades