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PRESS RELEASE
Jan. 21, 2020

Framatome awarded contract to support research at the European Laboratory for Particle Physics (CERN)

Jan. 21, 2020 – Framatome has been awarded a contract from the European Laboratory for Particle Physics (CERN) to support research that will inform the development of new materials to be used in the High-Luminosity Large Hadron Collider, a major upgrade to the existing Large Hadron Collider. This is the second contract that CERN awarded Framatome.

CERN will provide Framatome a capsule that was irradiated in a U.S. particle accelerator. Framatome experts will disassemble the capsule and examine the contained materials at the company's Hot Cell Laboratory in Erlangen, Germany. This laboratory is part of one of Framatome's independent Technical Center facilities and one of only a few facilities in the world that can flexibly assess highly activated materials.

Framatome experts will examine the materials using mechanical testing and microscopes to determine their physical and mechanical properties. The results will support CERN in the development of new materials for the proton beam halo cleaning collimators to be installed and operated at the 27-kilometer-long Large Hadron Collider machine.

"We are proud that CERN again selected Framatome to perform important examinations that support its research projects," said Alexis Marincic, senior executive vice president of the Engineering and Design Authority at Framatome. "This is further proof of the high quality of our services for assessing and testing materials and demonstrates our ability to competitively provide valuable services to customers beyond power-generating nuclear stations."

In 2018, Framatome performed post-irradiation examinations of an antiproton production target that CERN provided.

"Antiprotons are produced by colliding a proton beam with a fixed target. The high-energy collision of the proton beam with the nuclei of the target material creates a shower of secondary particles and, among them, antiprotons," said Marco Calviani, CERN's Targets, Collimators and Dumps Section Leader at the Engineering Department, Sources Targets and Interactions Group. "It was the first time that we had analyzed highly irradiated iridium. Framatome assessed the material and investigated the microstructure and mechanical properties after the seven-year operation of the target. The results provided by Framatome helped researchers at CERN to optimize the future target design."

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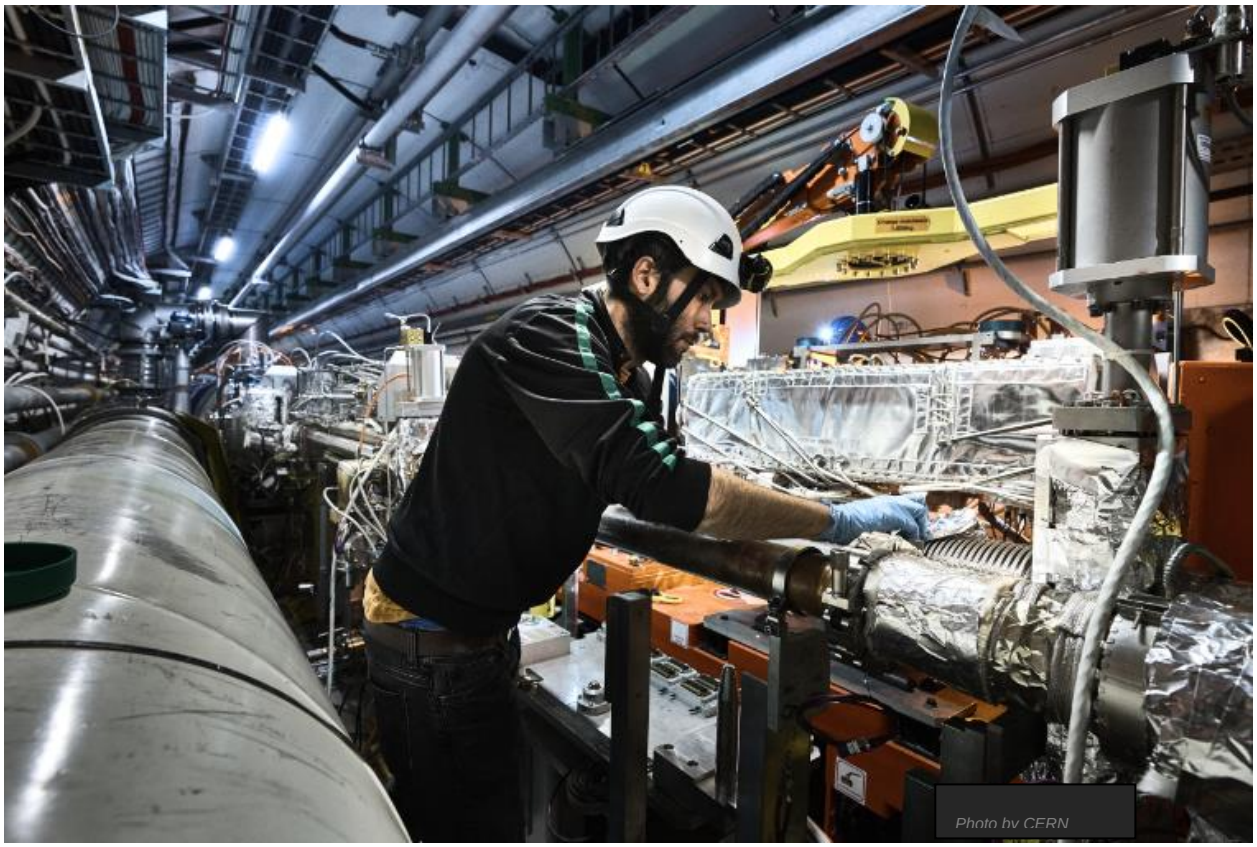

CERN staff working on an LHC collimator.

About Framatome

Framatome is an international leader in nuclear energy recognized for its innovative solutions and value added technologies for the global nuclear fleet. With worldwide expertise and a proven track record for reliability and performance, the company designs, services and installs components, fuel, and instrumentation and control systems for nuclear power plants. Its more than 14,000 employees work every day to help Framatome's customers supply ever cleaner, safer and more economical low-carbon energy. Visit us at: www.framatome.com, and follow us on Twitter: @Framatome and LinkedIn: Framatome. Framatome is owned by the EDF Group (75.5%), Mitsubishi Heavy Industries (MHI – 19.5%) and Assystem (5%).

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