

Framatome achieves milestone in robotics project for dismantling and decommissioning

May 18, 2021 – Framatome today announced the completion of a key milestone in the development of a robotic-assisted handling system to support decommissioning and waste management for the nuclear industry. Testing confirmed the operation of robotic systems for handling and sorting high-dose waste components, paving the way for increasing automation.

The Virtual Remote Robotics (VIRERO) project is focused on enhancing Framatome’s robot control systems by automating them for waste handling. This project is underway in partnership with the Institute for Factory Automation and Production Systems (FAPS) of the Friedrich-Alexander-Universität, Erlangen-Nürnberg (FAU), and Aachen Institute for Nuclear Training GmbH (AiNT).

“Together with FAPS and AiNT, we provide extensive automation and robotics expertise in the field of decommissioning and high-dose waste conditioning,” said Frédéric Lelièvre, senior executive vice president of Sales, Regional Platforms and the Instrumentation and Control Business Unit at Framatome. “The VIRERO project team combines years of experience in robotics and nuclear measurement technologies, ensuring a safe and robust solution to support our customers’ needs.”

Funded by the German Federal Ministry of Education and Research, the VIRERO project develops technologies for dismantling and sorting high-dose operational wastes, post-conditioning of packaged radioactive waste, and radiological sorting for handling, storage and disposal. Using a segmentation algorithm, radioactive waste can be automatically analyzed, sorted and disassembled.

The robotic-assisted handling system uses digital twin advancements so that operators can control the technology in an augmented virtuality environment using virtual reality goggles. This automation enhances operator safety and significantly improves waste treatment processes for the safe and efficient decommissioning of nuclear facilities and makes it possible to produce volume-optimized waste products. The universal system targets research and commercial reactors and can be adapted to other applications such as nuclear medicine.

The VIRERO project is expected to be completed by the end of 2023. The robotic-assisted handling system is being developed and tested at the FAU, Germany. AiNT focuses on the development of the automated nuclear measurement part of the handling system for sorting the waste components at Stolberg, Germany.

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In the dismantling and decommissioning market, Framatome builds on the company's installed base experience worldwide and as the original equipment manufacturer of more than 90 reactors.

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](https://twitter.com/Framatome) and LinkedIn: [Framatome](https://www.linkedin.com/company/framatome). Framatome is owned by the EDF Group (75.5%), Mitsubishi Heavy Industries (MHI – 19.5%) and Assystem (5%).

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