



The IRE submits its request for a single permit for the construction of a 100% Walloon cyclotron

Fleurus, February 9, 2021- In 2020, the National Institute of Radio Elements (IRE) signed a contract with IBA for the construction of a cyclotron on its site in Fleurus. This equipment will enable the IRE to produce locally Germanium-68, a key raw material to enable the institute to contribute even more to the fight against cancer. The IRE is pursuing the progress of this project by submitting today an application for a single permit (urban and environmental permit).

Since its creation in the 1970s, the IRE has been a pioneer in the development and production of radioisotopes for nuclear medicine. To remain at the forefront of its field of expertise, the IRE has constantly invested in new technologies and its teams, enabling the company to implement innovative, safe and sustainable production methods. From this investment perspective, the IRE plans to install a cyclotron with an energy of 30 MeV on its site in Fleurus.

"The IRE's mission has always been to contribute to health. This new cyclotron will enable us to achieve this objective even more efficiently", said Erich Kollegger, General Director of the IRE.

The cyclotron, a key equipment in the fight against cancer

Increasingly used in hospitals around the world, Gallium-68 (or Ga-68) is an isotope that enables very early detection of certain cancers (e.g. neuroendocrine tumors and recurrent prostate cancer), thereby improving patient prognosis. This is why the demand for Gallium-68 is growing. Today, IRE ELiT (the IRE's Innovation subsidiary) is one of only two global suppliers to have obtained approval as a drug in Europe. This makes Gallium-68 one of the institute's key products.

To produce Gallium-68 in its generators, the IRE needs a raw material called Germanium-68 (or Ge-68). In order to avoid having to obtain supplies from remote regions (such as the United States in particular), the IRE has decided to produce Germanium-68 on its own site by installing a cyclotron. This equipment is about 2 m wide and weighs nearly 30 tons. This machine accelerates particles in order to produce radioelements, such as Germanium-68.

"The first cyclotron was built in 1939. The production of Germanium-68 by cyclotron is therefore not a new production method. In Belgium, there are already about fifteen cyclotrons, on industrial sites but also and above all in university hospitals such as in Brussels (at the Hôpital Erasme, Cliniques universitaires St Luc, etc.), in Ghent or Antwerp, where they allow radioisotopes to be produced directly in the hospital, as close as possible to the patients," explains Erich Kollegger.



A 100% Walloon project

In addition to advancing the fight against cancer, the construction of this cyclotron will contribute to the development of the local economy. By repatriating the entire Gallium-68 production chain to its site, the IRE will thus provide work for several regional players.

For the construction of the building that will house the cyclotron, the IRE called on the engineering firm EKIUM Belgium, located in Jumet (just a few kilometers from Fleurus), which has partnered with the company SPP Architecte (based in Charleroi) for the architecture. For the installation and commissioning of the cyclotron, the Walloon company IBA (Louvain-la-Neuve) won the contract, which maintains a real network and local exchanges around this 100% Walloon project.

"We are very proud of this collaboration with the IRE and to contribute at our level with the best local experts in the fight against cancer. This mark of confidence also demonstrates the scope of the rich Walloon know-how in our region, which includes many players active in the life sciences sector.", says Sébastien Vercruysse, General Manager EKIUM - Belgium.

By 2023

The application for a single permit (urban and environmental permit) for this project will be submitted before the end of the month. It will be followed by a public survey of the population, as required by the procedure. In order to keep residents as well as possible informed on this subject, communications have been organized in collaboration with the nuclear support committee and the local authorities.

The IRE plans to begin work in the fall of this year, to host the cyclotron on its site by 2022, and to effectively start production of Ge-68 in the second half of 2023.



Project for the future building that will house the cyclotron on the IRE site



About the IRE - IRE ELiT

The IRE or Institut National des Radioéléments is a public utility foundation whose main activity is the production of radioisotopes for diagnostic and therapeutic applications in the field of nuclear medicine. The IRE is the world leader in the production of Molybdenum-99, the "parent" isotope of metastable Technetium-99, and the most widely used in nuclear medicine for numerous tests (heart, bones, lungs, thyroid, brain, kidneys, etc.).

In addition to its production activities, the IRE contributes through its IRE Lab division to the protection and monitoring of the environment through its services for measuring radioactivity in various samples; radiological characterization of waste and contaminated elements and consulting and technical assistance in the radiological and nuclear fields.

For its part, IRE ELiT is the Innovation subsidiary of the IRE founded in 2010 to develop radiopharmaceutical drugs used for the imaging and treatment of certain cancers and palliative care. In 2019, the group devoted 15% of its sales to R&D, a percentage that has been constantly increasing since the company was founded.

The IRE and IRE ELiT currently employ more than 250 people.

About Ekium

Ekium Belgium provides multidisciplinary and integrated engineering services, project management, regulatory consulting, audits and QA/QC in the following industries: pharmaceutical, biotechnology, hospitals, nuclear, microelectronics, food processing. Our approach to project definition allows us to design new custom-built units based on product, process, equipment, utilities and building analysis.

A member of the SNEF group since 2017 (12,500 employees and 1.5 billion in sales), EKIU supports its customers internationally.

Media Contact :

Bérénice PIGNOL - berenice.pignol@ire-elit.eu +32471706244