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Construction of the new Research Institute on Mines and the Environment (RIME) Pavilion

ROUYN-NORANDA

Investment:
\$50 million

FUQAT contribution:
\$10 million

THE PROJECT

Since its inception, UQAT has made the advancement of knowledge in the mining sector one of its key contributions. It has made investments in the mining and environment field, specifically regarding management of mine wastes and site reclamation, long before these fields were considered to be crucial as it is the case today. In doing so, UQAT has been a true trailblazer in the sector and is now recognized around the world for its expertise. Today, UQAT is among the 10 most productive institutions in the world in terms of scientific papers produced about the management of mine wastes, and is ranked first in Canada, in terms of NSERC grants for the following sectors: extraction, mineral processing, and environment.

In 2012, UQAT created the Research Institute on Mines and Environment (RIME). The Institute includes activities of the Unité de recherche et de services en technologie minérale [Research and Service Unit in Mineral Technology] (URSTM), the Groupe de recherche sur l'eau souterraine [Groundwater Research Group] (GRES), the Centre d'excellence sur les métaux stratégiques Éléments 08 [Centre of Excellence on Strategic Metals Elements 08] and the RIME UQAT-Polytechnique, a major joint research program that includes two universities and six major mining companies. The RIME's areas of expertise are : mine site reclamation, circular economy applied to mines, geotechnical and geoenvironmental stability of mine waste storage facilities,

water quality prediction, treatment and management of mine waters, transport of contaminants in the environment, influence of climatic conditions, knowledge sharing and exchanges with local communities, and responsible development of strategic metals and groundwater.

Research services and training activities at the RIME have grown significantly over the past 10 years. There are currently 4 research chairs and more than 20 major active research projects. The RIME carries out more than \$9 million in activities annually, with this volume of activity continuously growing. With respect to training, the number of active students at the RIME went from about 30 per year to more than 100 in the various programs offered at UQAT. Since its creation, the RIME has helped train more than 170 graduate students who come from more than 20 different countries.

The RIME sets itself apart through its partnerships with different stakeholders such as the industry, governments, consulting firms, and communities. Over the years, the RIME has worked with more than 150 different partners. Its unique research program is needs-focused, and its contribution to the advancement of knowledge is an integral part of changing environmental practices and sustainable development in the mining sector. In this way, the RIME activities contribute to the social acceptability of mineral resource development.

TIMETABLE

Start of construction :
2023

Fully operational :
2025



The RIME's sustained growth over the last 10 years has led to overcrowding in laboratories, service areas and offices. Besides limiting opportunities for staff expansion, as well as expansion of the research program and equipment, this lack of space is an obstacle to productivity.

Given the RIME's achievements and the importance of developing efficient and cost-effective environmental solutions for the mining sector, adding additional and appropriate surface space for cutting-edge equipment at the RIME has become essential.

Therefore, UQAT is undertaking the construction of a new pavilion : the Research Institute on Mines and Environment (RIME) pavilion. This pavilion building may become part of Rouyn-Noranda's Zone d'Innovation Minière (ZIM) [Mining Innovation Zone]; an innovation ecosystem consolidating operating companies, equipment manufacturers, educational and applied research institutions, innovation, commercialization, and export supporting organizations, as well as a wide network of partners in innovation, worldwide.

THE OPPORTUNITY

The mining sector is a pillar of Quebec's economy, and it is part of Abitibi-Témiscamingue's DNA, the only region to have all the areas of activity of the mining sector.

- This sector is facing major challenges, especially in terms of environment and social acceptability. Considering the increasing demands in these fields, the industry needs to implement innovative solutions to maintain its profitability, as it satisfies these demands;
- This project will enable the RIME to continue to develop Quebec's expertise in the mining sector and its transition to a new mining era. It will contribute to promote Quebec's talent, expertise and ability to innovate;
- Due to its training, research and knowledge transfer activities, the RIME will contribute directly to the competitiveness of the mining sector in Abitibi-Témiscamingue, throughout Quebec, and worldwide.

IMPACT

This project :

- Equips the region and the province of Québec with leading edge infrastructures for the responsible development of mineral resources, including emerging minerals;
- Strengthens Abitibi-Témiscamingue's status as an international hub for expertise in mining and environment, and in responsible mining development;
- Improves environmental performance for mining companies;
- Promotes the development of an exclusive, distinctive training offer with strong potential for international reach;
- Attracts the best resources : students, technicians, professional staff, professors and industrial partners;
- Allows the realization of new applied and fundamental research projects;
- Supports the publication of scientific papers, training activities, as well as technology transfer;

- Supports the emergence of start-ups, the creation of new businesses, and the expansion of existing businesses which may benefit from the innovative processes of the Zone d'Innovation Minière (Mining Innovation Zone), particularly through integration of industrial-institutional co-development spaces, directed toward the development of new business solutions.

In brief, this project will help the RIME to sustain its growth. It will ensure the development of its research niches and the training of future professionals in the mining sector. It will also help maintain collaborations with its partners from around the world, acting as a catalyst for the growth of a 4.0 Mining Sector aligned with today's environmental and economic imperatives.