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Addition of Residence and Heavy Laboratory Infrastructure

ABITIBI (AMOS)

Investment:
$6.5 million

FUQAT contribution:
$650,000 $

THE PROJECT

Besides delivering various programs of study, the UQAT campus in Amos houses highly specialized laboratories and research teams in hydrogeology, forestry, aquatic ecology, silviculture, and plant-based ecophysiology fields. These facilities are located on the 6th floor of the Carrefour du savoir. Currently, the work these laboratories do involves the collection of significantly high numbers of water, wood, leaf, root system, soil, and rock samples, which subsequently need to be handled multiple times (cutting, sanding, drying, chipping, etc.). The labs also need space for the handling of heavy equipment for research purposes (for example: saws, sanders, drills, drilling pipes, pumps, etc.) and to test and prepare equipment to be installed in the field. Additionally, graduate and postgraduate students who attend the campus all come from outside the Abitibi RCM. Currently, the campus has no infrastructure available to accommodate this equipment.

The 6th floor laboratories, used for careful handling in clean conditions (optical analyses, microscope analyses, analyses of fatty acids, analyses of sugars, etc.), are incompatible with heavy operations such as those associated with root excavations (washing and drying of hoses 400+ metres long) or fishing (washing and drying of large nets), to name but two examples. At this time, there is no available space suitable for carrying out these activities. Currently, such activities are carried out on the premises of the Harricana School Service Centre (CSSH) or at professors' private residences, limiting collaborations but, above all, resulting in loss of valuable time, facilities, and financial resources. Additionally, the arrival of two new professors in forestry and a research officer in aquatic ecology, the NSERC Industrial Research Chair in Silviculture and Wood Production, the funding agreement signed for research in forestry with the Abitibi RCM, and the creation of GREMA (Groupe de recherche en écologie de la MRC d'Abitibi) will generate an increase in the volume of research, and in the number of students on campus. This is in addition to the significant growth experienced by the Groundwater Research Group both in terms of the student population and in terms of specialized equipment, as well as, for the first time at UQAT, the emergence of new avenues for research in aquatic ecology.

TIMETABLE

Start of construction:
2023

Fully operational:
2024

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Fields:
Forestry (Ecology, Forestry, and Aquatic Sciences Mines (Groundwater and Geomatics)

Existing premises are struggling to cope with this boom, both in terms of research infrastructure and the increasingly urgent need for housing for students from outside the region and from abroad who will take part in these projects. Forecasts show that, within a three-year timespan, research teams will welcome 86 individuals, including 67 graduate and postgraduate students and 19 co-op students, not counting professional staff and technicians. Thus, it is imperative that a tailored solution be found to sustain this growth especially when, according to the most recent Canadian Mortgage and Housing Corporation (CMHC) statistics[1], Amos is experiencing a housing crisis, with a vacancy rate of 1.1% in rental units, the balance situated at 3%. This situation leads to higher need with regard to work spaces, handling areas, storage spaces and housing spaces. New spaces are also needed for the equipment serving the heavy laboratories, including for maintenance and storage of vehicles (trucks, ATVs, boats) and gas-powered equipment (auger, chainsaw, outboard motor, fire pump).

Today, the Amos campus' continued growth cannot be sustained by rental of work space from the CSSH, nor the storage of equipment in team members' private residences. In addition, the vacancy rate in rental accommodations clearly indicates that available accommodations in the area are insufficient to meet the campus' housing needs.

[1] https://www03.cmhc-schl.gc.ca/hmip-pimh/fr#TableMapChart/2488055/4/Amos+(V)+(Québec)

L'OPPORTUNITÉ

- The addition of spaces dedicated to carrying out heavy laboratory work turns out to be critical for maintaining development and growth of research teams in forestry, aquatic ecology, and hydrogeology at the Amos campus.
- The creation of a lab for heavy work positions UQAT strategically in the context of research development taking place in Abitibi-Témiscamingue and Nord-du-Québec regions.
- Nearby access to residences for students, co-op students and ad hoc research team members will make recruitment and partnerships easier.
- This new point of service will be the gateway for researchers from Quebec and abroad who wish to carry out research work in northern environments.

IMPACT

Access to new housing and heavy laboratory infrastructures will make recruitment easier, ensure the growth of scientific research, and give rise to new collaborations and partnerships, besides ensuring graduate and postgraduate student training in Amos.

The heavy laboratory will provide equipment essential to the development of expertise in aquatic ecology, thus making the campus in Amos a key player in positioning UQAT in this field which, at this time, does not exist in the Abitibi-Témiscamingue region.

With the recent intensification of research work in the Nord-du-Québec region, this will enable UQAT to position itself as a scientific leader and increase its influence in this area, both in Quebec and internationally.