FORAC Research Consortium
Pavillon Adrien-Pouliot, Université Laval
Québec (Québec), Canada, G1V 0A6
www.forac.ulaval.ca

MASTER RESEARCH PROJECT (M.Sc.)

Strategies for a More Accurate and Predictable Private Forest Supply

FRENCH LANGUAGE	Although most of our research team at the FORAC consortium are fluent in English and can facilitate your arrival at Université Laval, our students are expected to be able to communicate in French within the first year of their arrival in Quebec City.
Research domain:	Forestry, Logistics, decision support system, optimization
Prior education:	Forestry
Research context:	The FORAC research consortium is a strong partnership between stakeholders in the forest products industry (businesses and governments). Based at Université Laval (Quebec City, Canada), we offer our partners world-class multidisciplinary research expertise. We bring together expertise in the fields of forest engineering, wood engineering, industrial engineering, mechanical engineering, administrative sciences and computer science. Our mission is to support the forest products industry in the design and effective management *from the forest to the customer*. FORAC aims to be a Canadian and international reference in the field of integration and optimization of the value creation network. Researchers are developing decision support and decision support methods that leverage the potential of data to improve planning, coordination and control of operations across all business lines (forest operations, transport and logistics, processing plants, etc.).
Project description:	The creation of protected areas and increasing pressures on public forests suggest a potential reduction in the volumes available for industrial supply. In this context, Quebec's private forests represent a strategic alternative offering superior silvicultural yields, greater proximity to markets, and a harvesting potential that remains only partially tapped (Ministère des Forêts, de la Faune et des Parcs, 2020; Fédération des producteurs forestiers du Québec, 2023). This master's thesis aims to quantify the volume gains that can be achieved by implementing timber mobilization strategies in private forests and to improve the predictability of supply. The project will begin with a literature review to contextualize the situation in Quebec in relation to studies and experiences conducted elsewhere in the world (Orazio et al., 2017). An analysis of timber flows and available production resources will then be conducted in the Bas-Saint-Laurent region, considering logistical, organizational, and economic constraints. More specifically, the project will focus on aligning available resource development budgets, forest management-specific tax policies, and technical harvesting methods, drawing on the work of Olschewski et al. (2019). Expected results include developing scenarios incorporating different management plans, infrastructure, technical tools and logistics strategies. Expected Start date: 2027-01-11
Financing:	Scholarship of $ 22,900 per year for a length of 5 full-time sessions (i.e. one year and two semesters). This scholarship is indexed once a year. Participation bonuses of up to $5,250 annually are available. Additional funds are available to cover the costs of participation in international conferences (with article) and travel expenses (collaboration with partners, industrial visits, field study).

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To apply:	Interested candidates can apply by sending their application (*including CVs, transcripts and motivation letter*) to the following email address: recrutement@forac.ulaval.ca or contact the professor to discuss the project directly: Luc LeBel, professor, Faculté de Forestry, Geography and Geomatics, Luc.Lebel@sbf.ulaval.ca