



Press release - 11th of May 2020

## Wood chemistry : Gemm\_Est is joining forces with ExtraFor\_Est

The Gemm\_Est and ExtraFor\_Est research projects are pooling their communication

Gemm\_Est and the *Extractibles des Forêts de l'Est* project are coming together in order to communicate their common ambition: to better understand and enhance the value of the biomolecules present in trees. While ExtraFor\_Est is studying the chemical compounds that can be extracted using green solvents, Gemm\_Est is interested in the products of tapping softwoods. The aim is to have biological and technical data in two years' time to assess the regional feasibility of tapping, in a context of growing societal demand for biomolecules.

### An innovative investment for the development of the region and the economy

On the basis of their maritime pine resource, Spain, Portugal and the *Nouvelle Aquitaine* region have recently relaunched the production of turpentine and rosin, the two components of the resin. However, in Eastern France, despite the abundance of softwood resources, there are no tapping activities. It is therefore necessary to develop our knowledge of the molecules that the softwoods present can produce: the biomolecules of the resin, terpene and polyphenolic families. The aim of Gemm\_Est is to take advantage of ancient practices and to understand the mechanisms of terpenes and resin acids overproduction in response to wounds and the addition of adjuvants that delay healing. Five species are being studied: Silver fir, Norway spruce, Douglas fir, Scots pine and larch. The two most promising species will be the subject of in-depth research.

### Gemm\_Est, an ambitious two-year research project

Winner of the call for proposals Mirabelle+ 2018 from the i-site *Lorraine Université d'Excellence*, the project brings together 12 scientists, one post-doctoral researcher and two Master 2 students, for a total budget of €140,000 over a two-year period, from October 2019 to October 2021. Six laboratories and R&D organizations are involved: MRU Silva and IAM, Lermab, BETA, IGN and the *Muséum National d'Histoire Naturelle*.

Following the example of ExtraFor\_Est, Gemm\_Est plans to make all the knowledge acquired available to stakeholders in the forest-wood sector and the chemical industry. This will better enable a certain number of biomolecules in the fields of cosmetics, pharmaceuticals, food processing, health and well-being to be exploited.

## Collaborative communication with the ExtraFor\_Est project

Thanks to an effective communication between the two research projects, the ambition is to promote the scientific competences of the *Grand Est* region in the field of wood chemistry and the mobilisation of the most interesting forest resources. Thus, the website, which was entirely dedicated to ExtraFor\_Est to date, will now offer information on the Gemm\_Est project. At the same time, social network accounts of the ExtraFor\_Est project have been reworked so that they can also communicate on Gemm\_Est news.



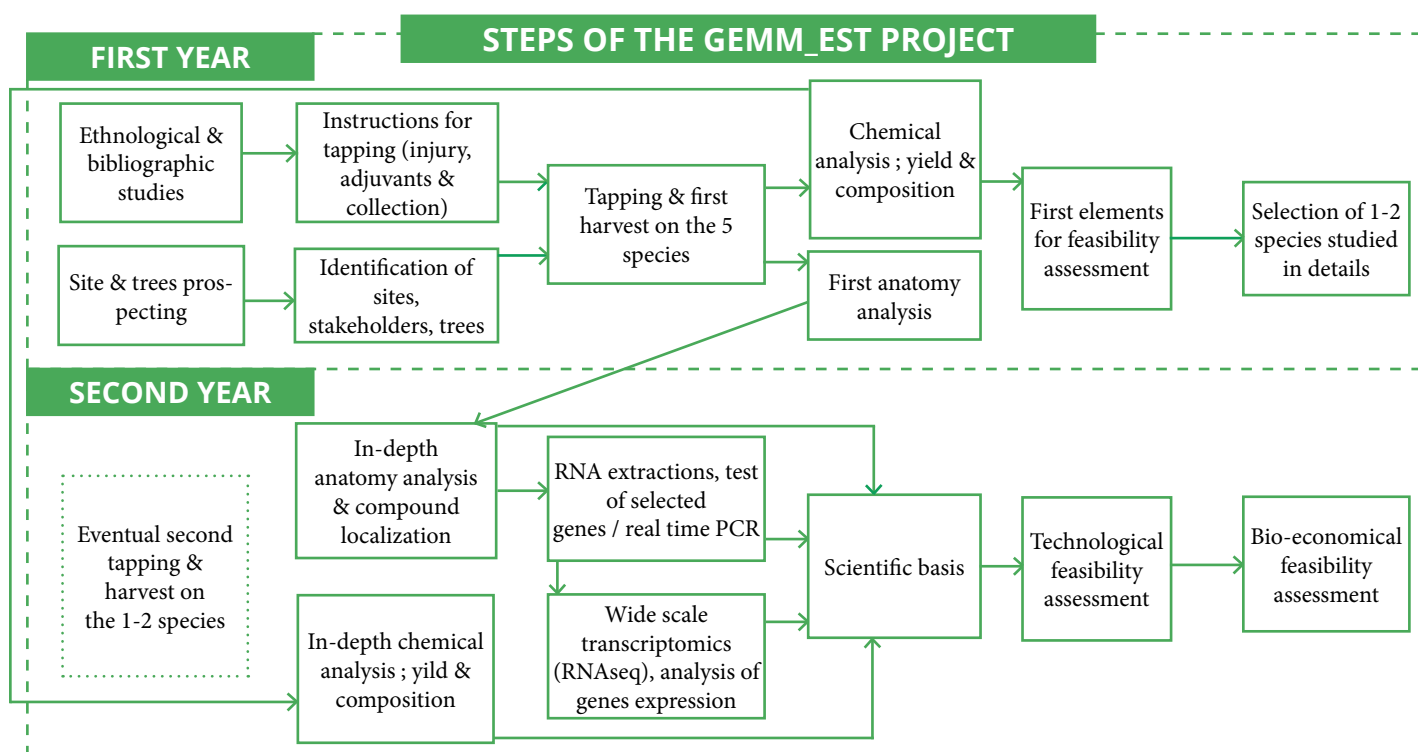
### Francis Colin - Coordinator of the Gemm\_Est project - UMR Silva

« The Gemm\_Est project is a response to the strong societal demand for biomolecules, particularly from softwoods that were once gemmed in eastern France. I built the project in a very multidisciplinary way by involving researchers and engineers with expertise in socio-ethnology, wood chemistry, genomics, biochemistry, physiology, bioeconomics and forest resources studies. They are accompanied by a committee of actors interested in Gemm\_Est. »



### Antoine Colin - Head of Forest Resources Assessment - IGN Nancy

« The IGN wanted to join the Gemm\_Est project to facilitate connections between research results and the operational information needs of public and private stakeholders in the territories. Concretely, the IGN will locate the Scots pine forests whose characteristics seem to be the most suitable for tapping. This new information will be necessary to help the development of public and private initiatives in this field. »



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**Press contact :**

Corinne Martin - +33 (0)7 61 76 55 58  
[projets.extragemmest@gmail.com](mailto:projets.extragemmest@gmail.com)