***Specification of Subject of Performance***

**Name of the service: Genetic evaluation based on genomic data**

**Required activities – their description, scope (e.g., number of samples, study area), timeline, etc.:**

The work will consist of two activities:

1. **Permanent statistical and scientific support** corresponding to approximately 10 hours/month.
   1. Assistance on the generation of experimental designs in terms of statistical planning, randomization, and sample size calculations when required
   2. Assistance on the definition of objectives for data collection, with the relevant definition of variables and integrity of information required
   3. Providing support to other team members (graduate students, post-docs) on their statistical analyses for data related to the current objectives
   4. Participate remotely in coordinating meetings for the project with leaders and team members as required
   5. Provide support by email on specific statistical questions related to project objectives as required
   6. Assistance on the writing of project reports and presentations to distribute results
2. **Specific tasks** associated with the team's needs will correspond to a approximately 10 hrs/month.
   1. Analyses of SNP markers of the delivered samples of Norway spruce with an emphasis on ecotypic variation. Used methods must comprise of GBLUP and GWAS. The preliminary number of samples: 1500
   2. Supervision of all statistical analyses and partial assistance in bioinformatics – the first group of samples will be analyzed within five months after the contract conclusion
   3. Supervision of linear mixed models with incorporated genomic information in ASReml software. Estimated number of individual substudies: 10
   4. Defining statistical models and procedures to use to analyze data originated form experiments, with emphasis on linear mixed models.
   5. Direct writing of the scientific manuscript for publication on team members and the associated follow up for answers to reviewers
   6. Provide statistical training on the topics of linear mixed models, particularly the software ASReml-R. This will be done informally (during meetings) or as specific training for team members (remotely or in-person)