

27.02.2026 No 1-7/2026/1249

Letter of Support

To whom it may concern

The State Forest Management Centre (RMK) expresses support for the team grant project by associate professor Arvo Tullus (University of Tartu) “Impact of changing moisture conditions on hemiboreal forests: coordination of above- and belowground functional responses and the carbon cycle” to be submitted to Estonian Research Council’s 2026 call for grant applications.

The results of the planned project would provide new knowledge about the acclimation capacity of Norway spruce and black alder (both are important species for Estonian forestry) to two major climate change projections for the region: more frequent droughts in spring and increasing precipitation during the growing season. The project will also clarify the potential benefits of tree species mixing (N-fixing alder with non-fixing spruce) to improve the stress tolerance of forests, especially concerning the stress-sensitive spruce.

The project will advance the understanding of forest ecosystem responses to climate change. Special focus is paid on integrated analysis of aboveground (canopy layer) and belowground (root layer) responses. The project will also clarify the impact of future climate conditions on the forest carbon cycle, which is important aspect to consider in maintaining high carbon sequestration potential of forests (one of the targets in RMK) as well as in national greenhouse gas reports (LULUCH).

For the research team led by A. Tullus, the grant would help to continue their unique forest ecosystem Free Air Humidity Manipulation (FAHM) experiment, where the novel aspects are drought treatment (rainfall exclusion) and a new test species – black alder, planted both in monocultures and mixtures with spruce.

RMK advises the Estonian Research Council to approve the team grant application by A. Tullus, as the project would create important new knowledge about the adaptability of our forests to climate change. The outcomes of the project will contribute to science-based planning on sustainable and climate-smart forestry with spruce and alder at fertile fresh to moist site types.

Yours sincerely

Kristjan Tõnisson
Member of the Board