

# BIOKARELIA



## Cross-border tools for biodiversity hotspots preservation via monitoring and prevention of forest fires along Russian-Finnish border (KA5051)

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# Need

Forest fires on 20.07.2018



- Biodiversity "hotspots" along the Finnish Russian border are connected
- Risk for forest fires to cross the border exists
- Fire suppression in the border zone is difficult
- Climate change increases the forest fire risk
- Forest fire risk classification different in Finland and Russia, information exchange cross border not exists

Russian forest fires are seen from a satellite on July 20. (NASA)

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# Objectives and main activities

**The aim** of the project is to develop practical tools for biodiversity hotspots preservation via mapping biodiversity values, monitoring and forecasting occurrence of forest fires and wood harvesting along Russian-Finnish border.

## **Specific objectives:**

1. To map current state of biodiversity “hotspots” and analyze their connectivity.
2. To evaluate the impact and value of existing connections between high conservation value forests and high forest fire risk areas on state of biodiversity in Republic of Karelia and North Karelia.
3. To develop new generation of forest fires forecasting tools utilizing meteorological data, remote sensing data and drying models.
4. To build online application tools for forest cover monitoring and risk forecasting along the border between Finland and Russia.
5. To pilot new methods for forest fires monitoring using unmanned aerial vehicles.
6. To develop effective co-operation networks of actors involved in forest management, nature conservation, forest fires protection.
7. To spread the information about good practices of forest management and monitoring for preventing loss of biodiversity.

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# Expected results

- Analysis of current state of biodiversity “hotspots” and their connectivity
- New generation of forest fires forecasting tools
- Online application tools for forest cover monitoring and risks forecasting along the border between Finland and Russia
- Analysis of application of new methods of forest fires monitoring using unmanned aerial vehicles
- Effective co-operation networks of actors involved in forest management, nature conservation, forest fires protection.

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# Project



**arbonaut**



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- Partners:
  - Natural Resources Institute Finland (Luke) (coordinator)
  - Centre for Economic Development, Transport and the Environment of North Karelia
  - Arbonaut Oy
  - Forest Research Institute of Karelian Research Centre
  - Kostamuksha Strict Nature Reserve and Kalevala National Park
  - Buro Partner Ltd
  - Directorate for regional protected territories for the Republic of Karelia
- Budget: 550 453 euro
- Duration: 01.05.2019 – 31.01.2022

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