VIRTUAL FOREST 2.0

by Lapland UAS

LAPIN AMK

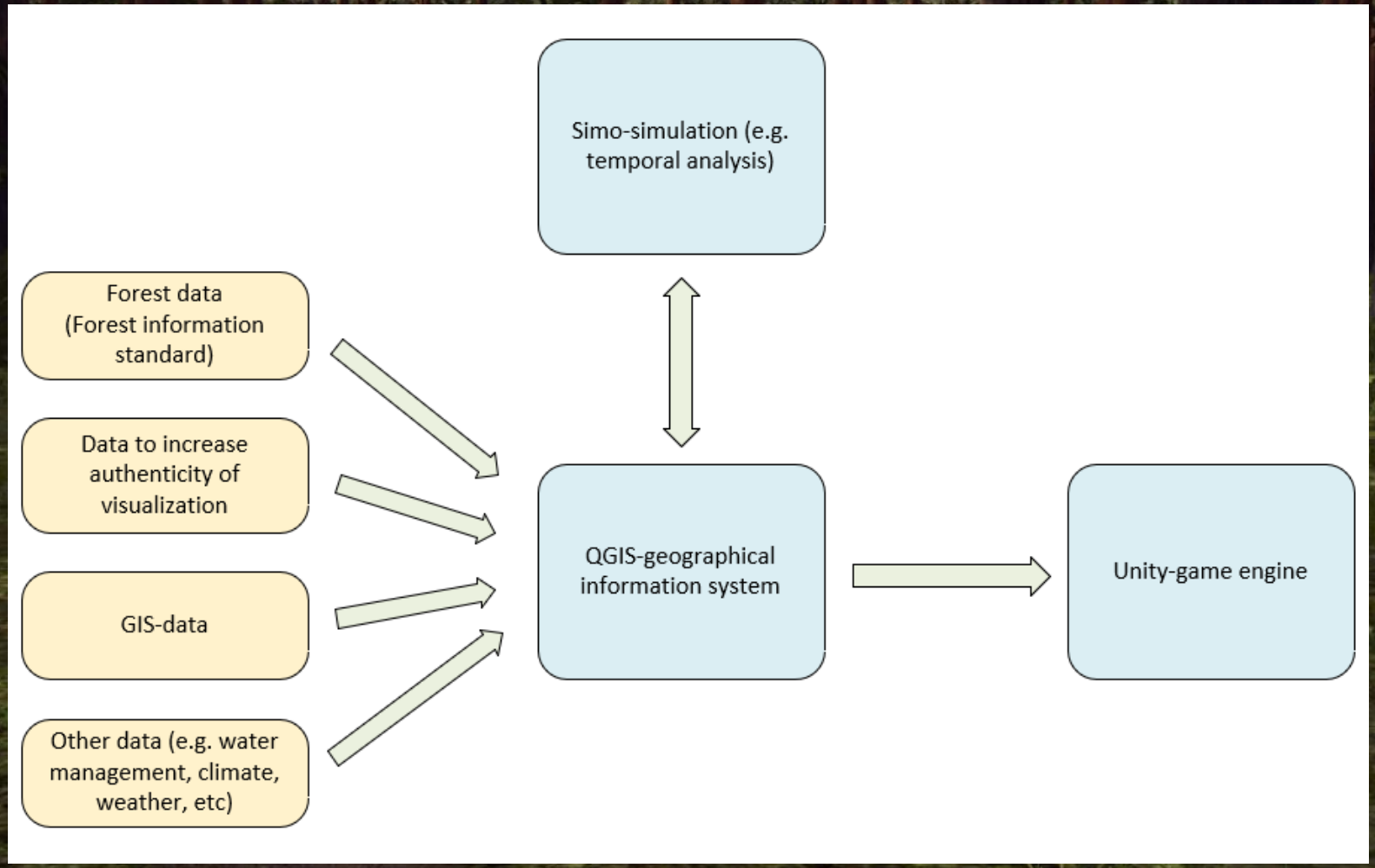
Virtual Forest 2.0

- Virtual forest has been developed to enable effective and user friendly 3D visualization of forest and geographic data
- The main idea of the solution is to enable the possibility to demonstrate and evaluate the effects of forest management
  - Virtual forest can be used for supporting decision making processes in different use cases
- In Northern Finland many user groups utilize forests in their activities so different needs have to be taken into account by participating different user groups into the decision making processes
  - Forestry
  - Reindeer husbandry
  - Tourism, etc
- Virtual forest has been developed by Lapland University of Applied Sciences

LAPIN AMK

Virtual forest, architecture

- Virtual forest is based on real forest and geographic information data



Virtual forest, current features

- Visualization is based on geographic information and forest data
  - Ground models are used for enabling visualization of real ground elevation
  - Ground vegetation is generated according to the forest type
  - Trees are generated according to the tree data
- Buildings can be added to the visualization
- Rocks, waterbodies, roads, etc can be visualized
- Possibility to move in the air or on the ground

Virtual forest, current features

- Different forest management operations can be executed
  - User friendly way to visualize operations
- User can delineate retention zones and retention tree groups

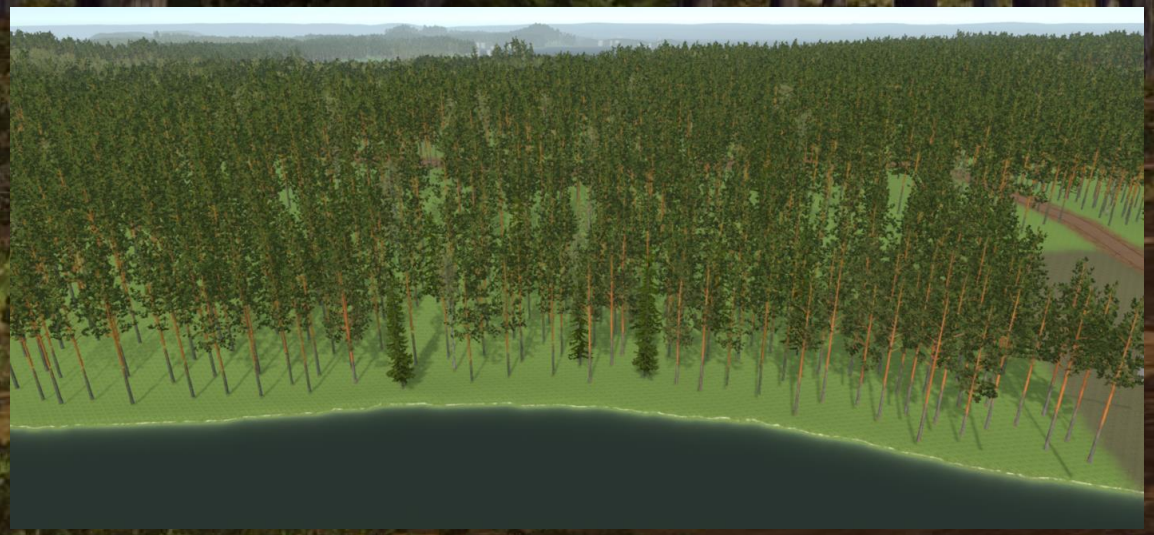
Virtual forest, use cases

- Example use cases for the solution:
  - Landscape planning
  - Participatory planning (e.g. cities or other public entities)
  - Communication (also in remote connections)
  - Forestry
    - Counselling of forest owners
    - Forest planning
    - Logging
    - Forest management

TAB Näytä ohjeet Sulje Päävalikko

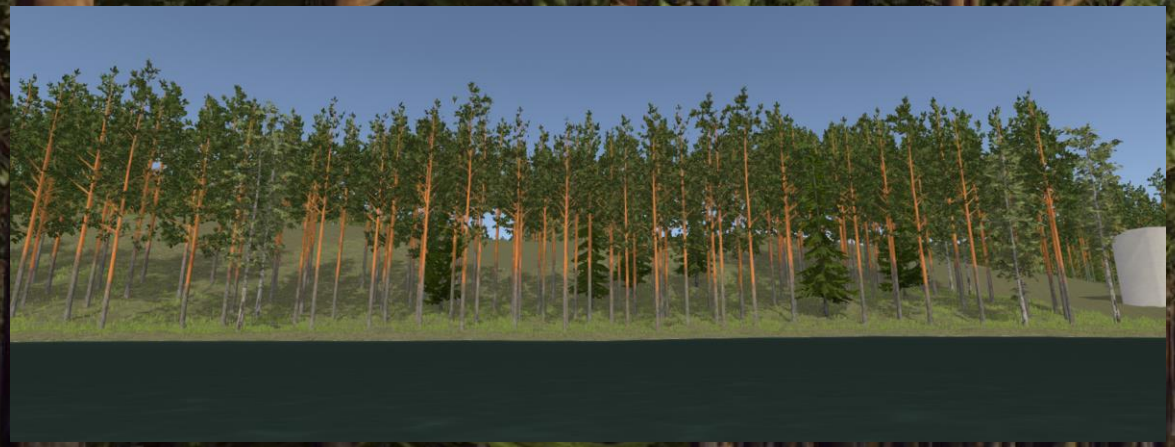
Example of a visualization of a logging plan

- Logging of a stand next to a lake
  - Land owner wanted to have a retention zone around his cabin and the sceneries taken into account while deciding the logging operation
- Lower left corner: starting situation

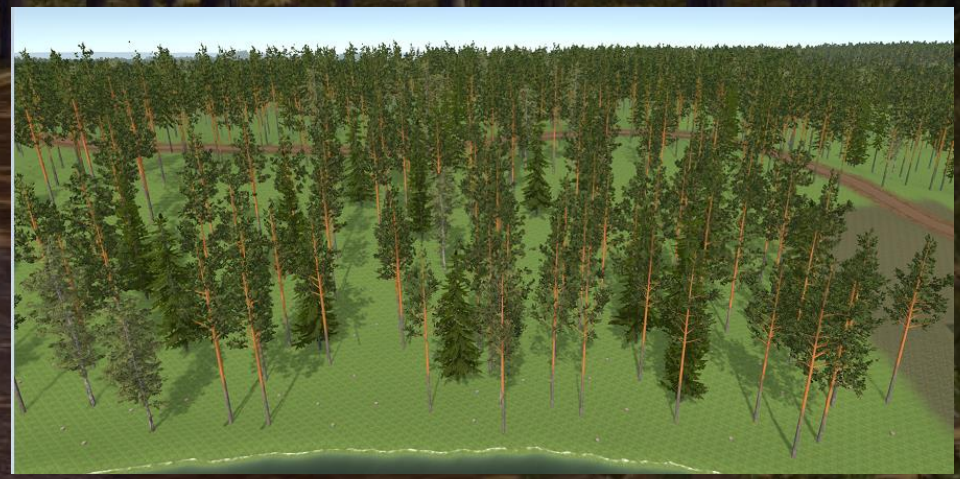


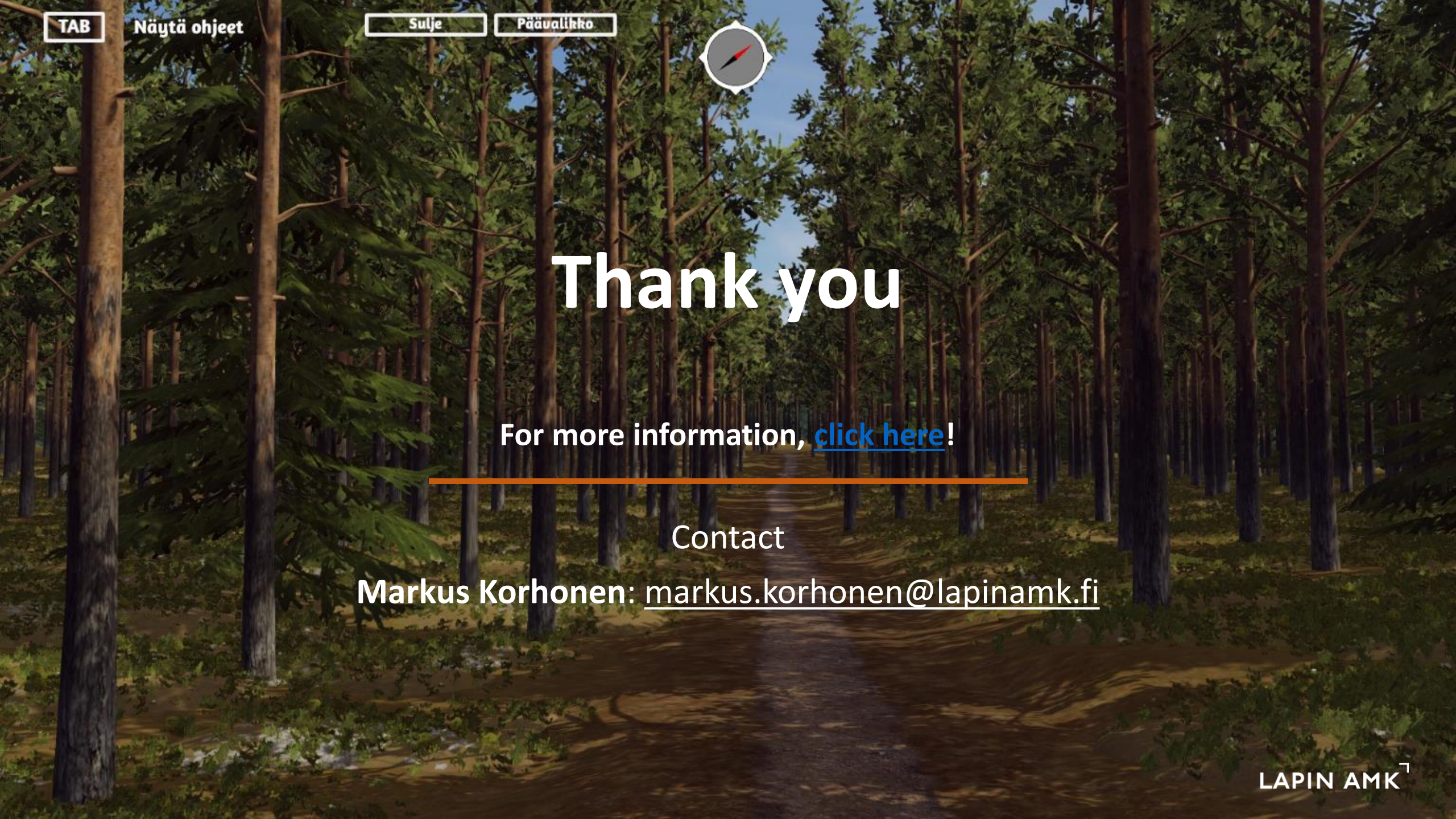
TAB Näytä ohjeet Sulje Päävalikko

Visualization of a logging plan



- Virtual Forest can visualize the visual effects of the logging in 3D
  - Top left picture: View from the lake
  - Bottom left picture: View from the lake in bird perspective
  - Bottom right picture: View from the lake in bird perspective without clear cutting





Thank you

For more information, click here!

Contact

Markus Korhonen: markus.korhonen@lapinamk.fi

LAPIN AMK