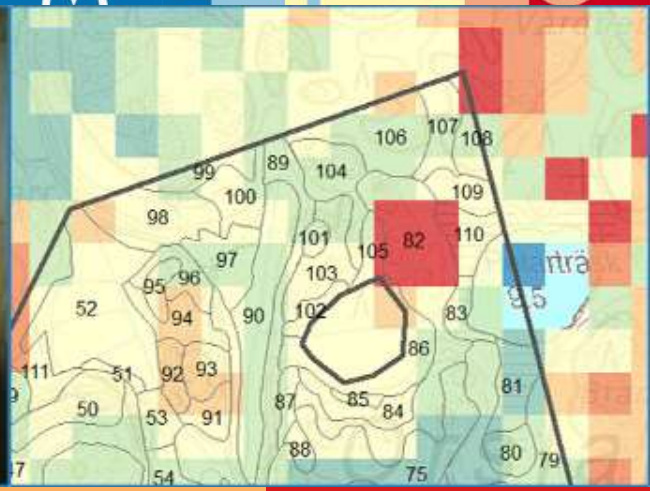
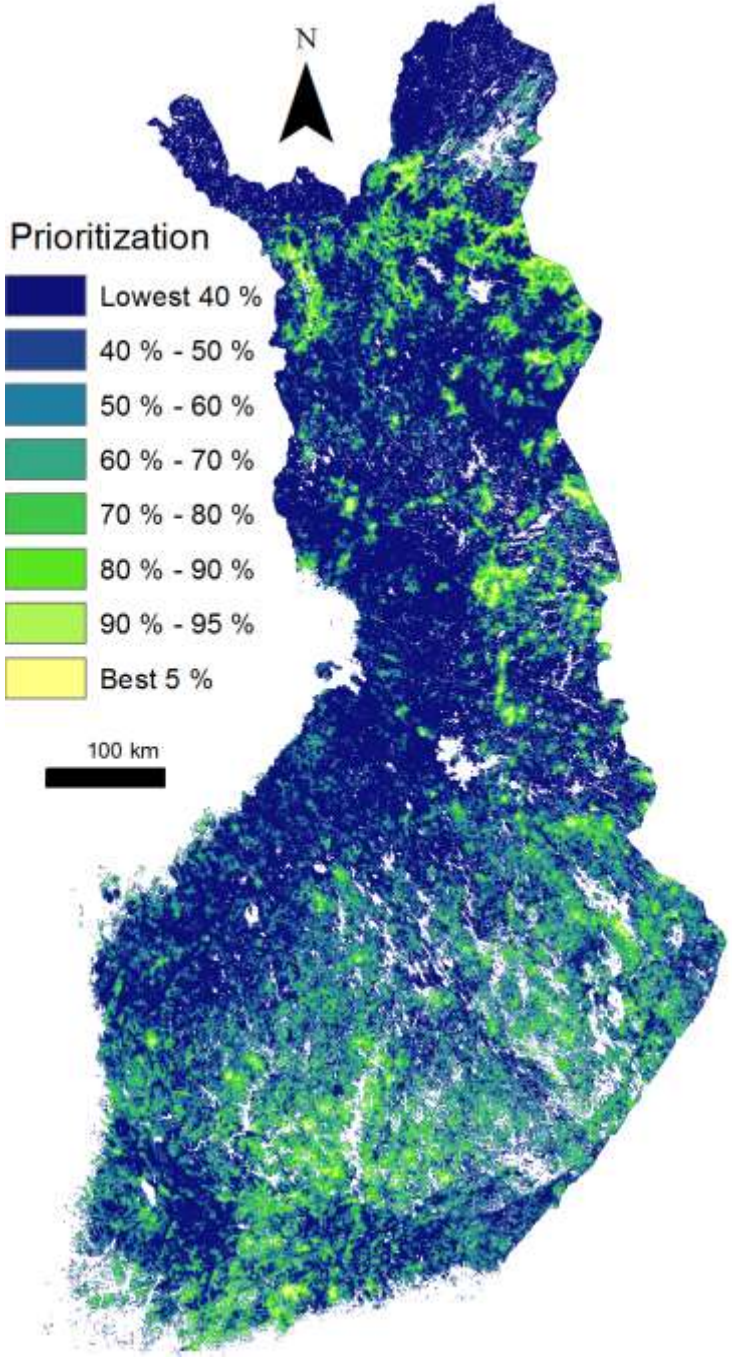


Case Zonation and forest biodiversity

Coordinator Ninni Mikkonen
Finnish Environment Institute SYKE
13.6.2018 ECCB Jyväskylä

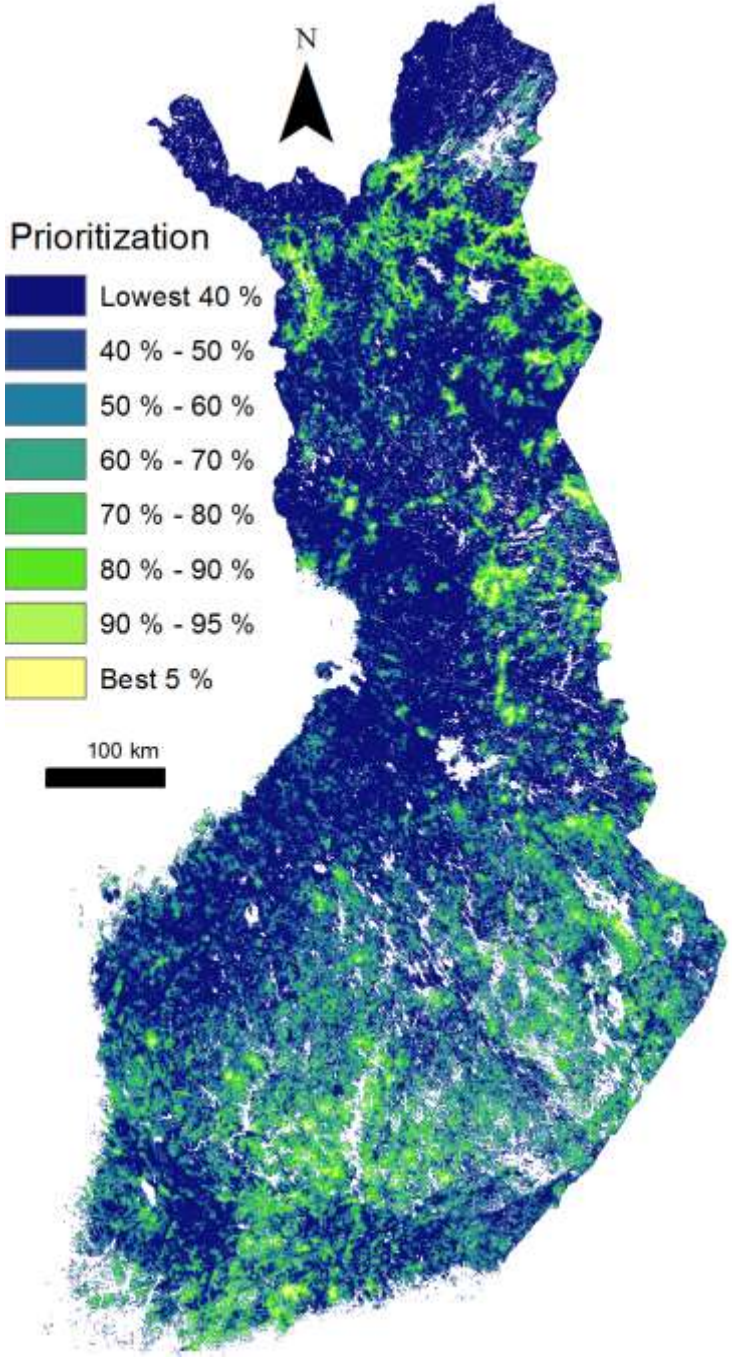


Outline

1. ZONATION
   Conservation planning software

2. Forest biodiversity prioritizations

3. Earth observation data



ZONATION
Conservation planning software

Uses mainly spatial raster data of biodiversity

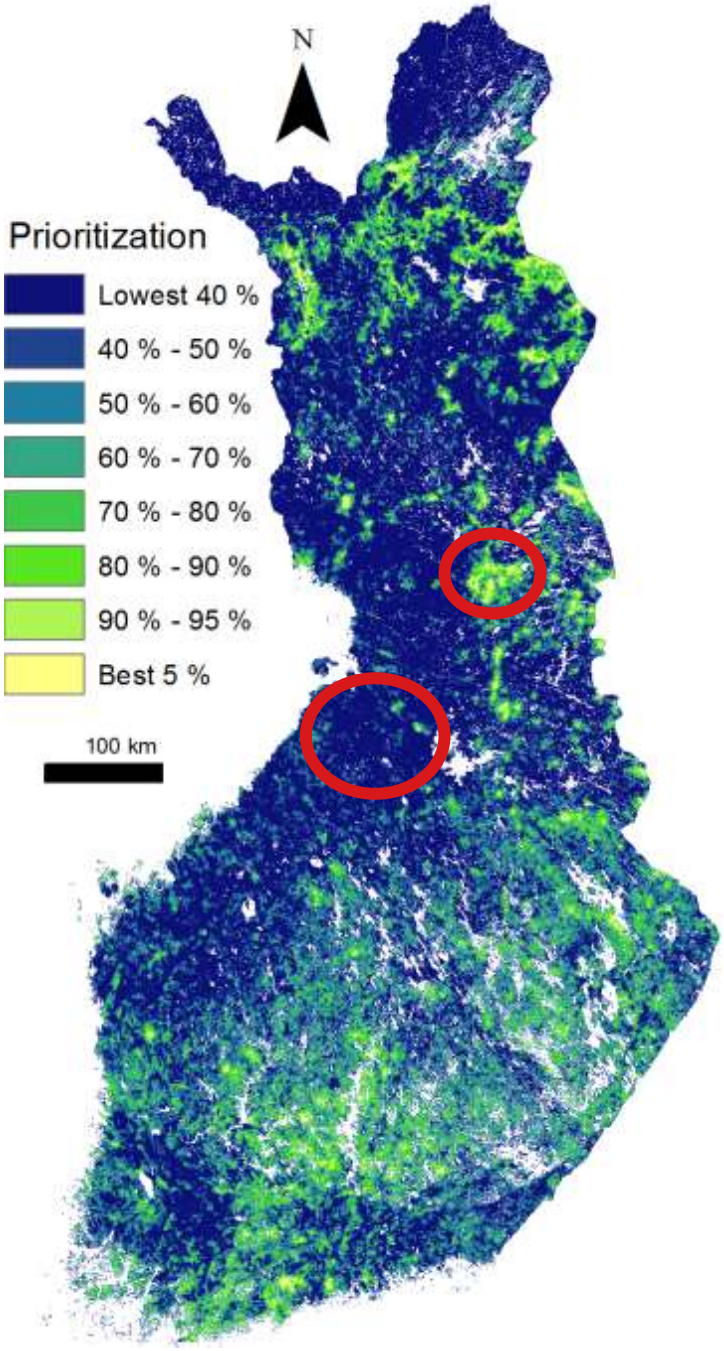
- Species, ecosystems, ESS

+ costs, threats, connectivity…

Based on complementarity

Creates balanced result

.. Which usual look like this



With Z we can recognize

1. Most valuable forests for biodiversity
1. If not protected – Hurry up!
2. Least valuable forests for biodiversity
3. Conservation network expansion
4. Conservation network assesment

METSO
Forest Biodiversity

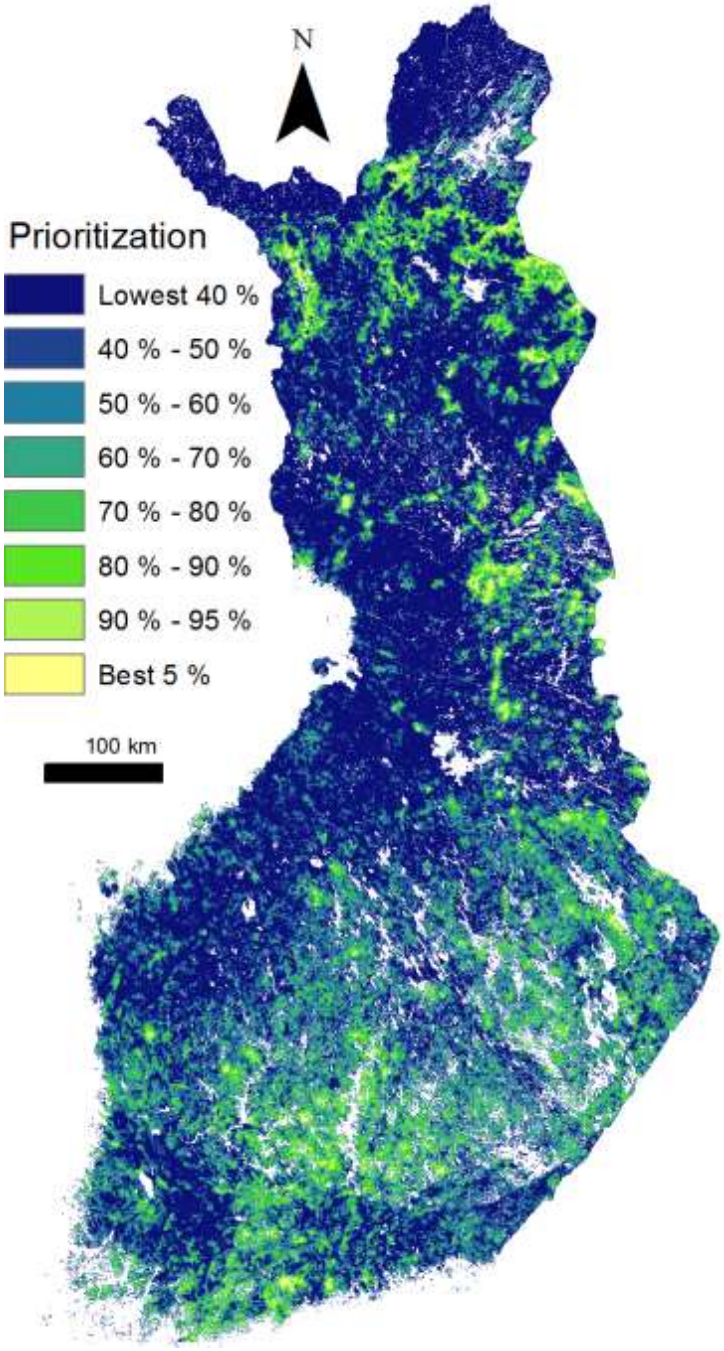
SYKE
Finnish Environment Institute

Centre of Economic Development, Transport and the Environment

Ympäristöministeriö
Miljöministeriet
Ministry of the Environment

metsäkeskus
Finnish Forest Centre

METSÄHALLITUS
Parks and Wildlife



Forest biodiversity analysis setup

1. Local value (modelled decaying wood potential)*
2. Penalties*
3. Unfragmentation (connectivity)
4. IUCN Red List forest species
5. Connecitivity to forests protected by Finnish Forest Act
6. Connectivity to permanent forest conservation areas

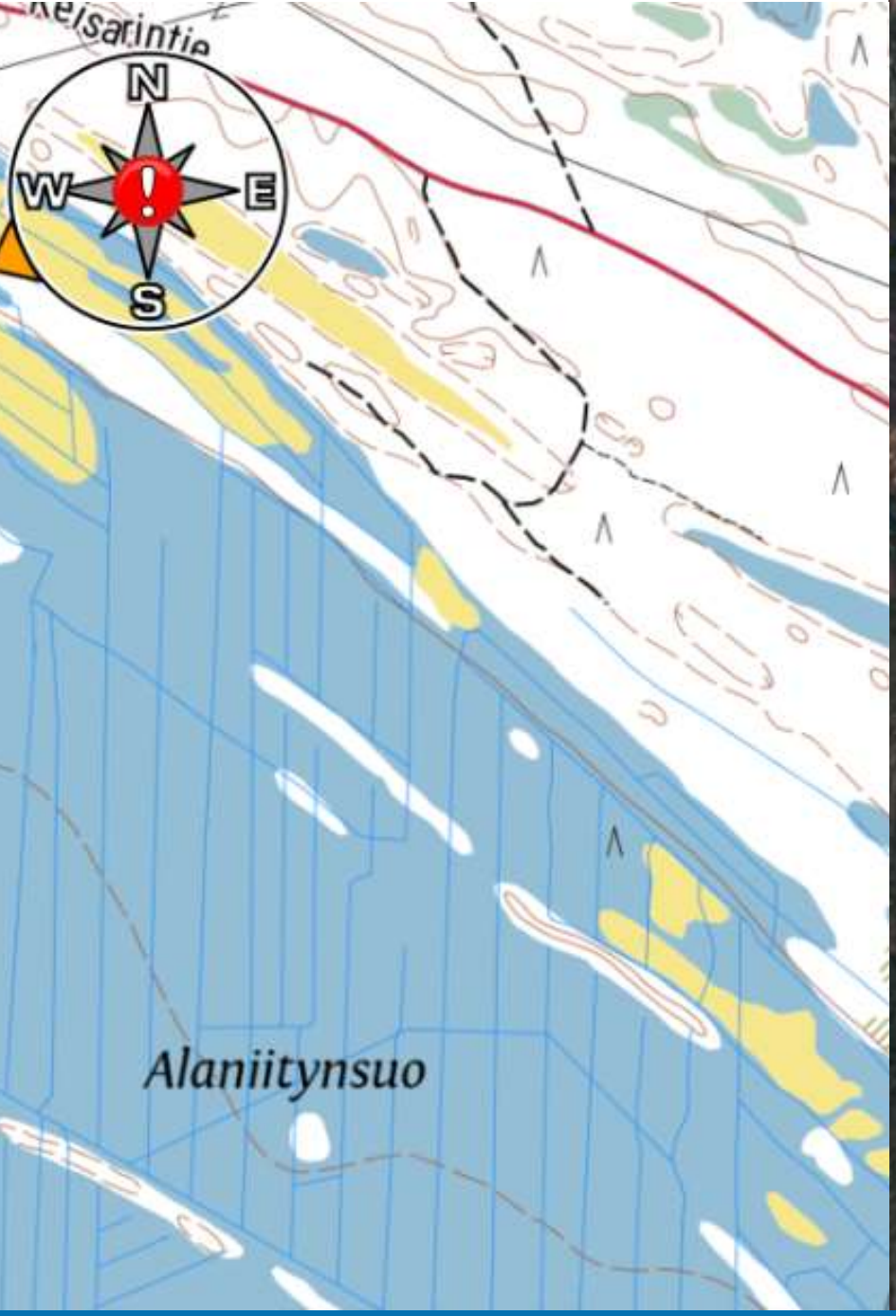
*includes EO data

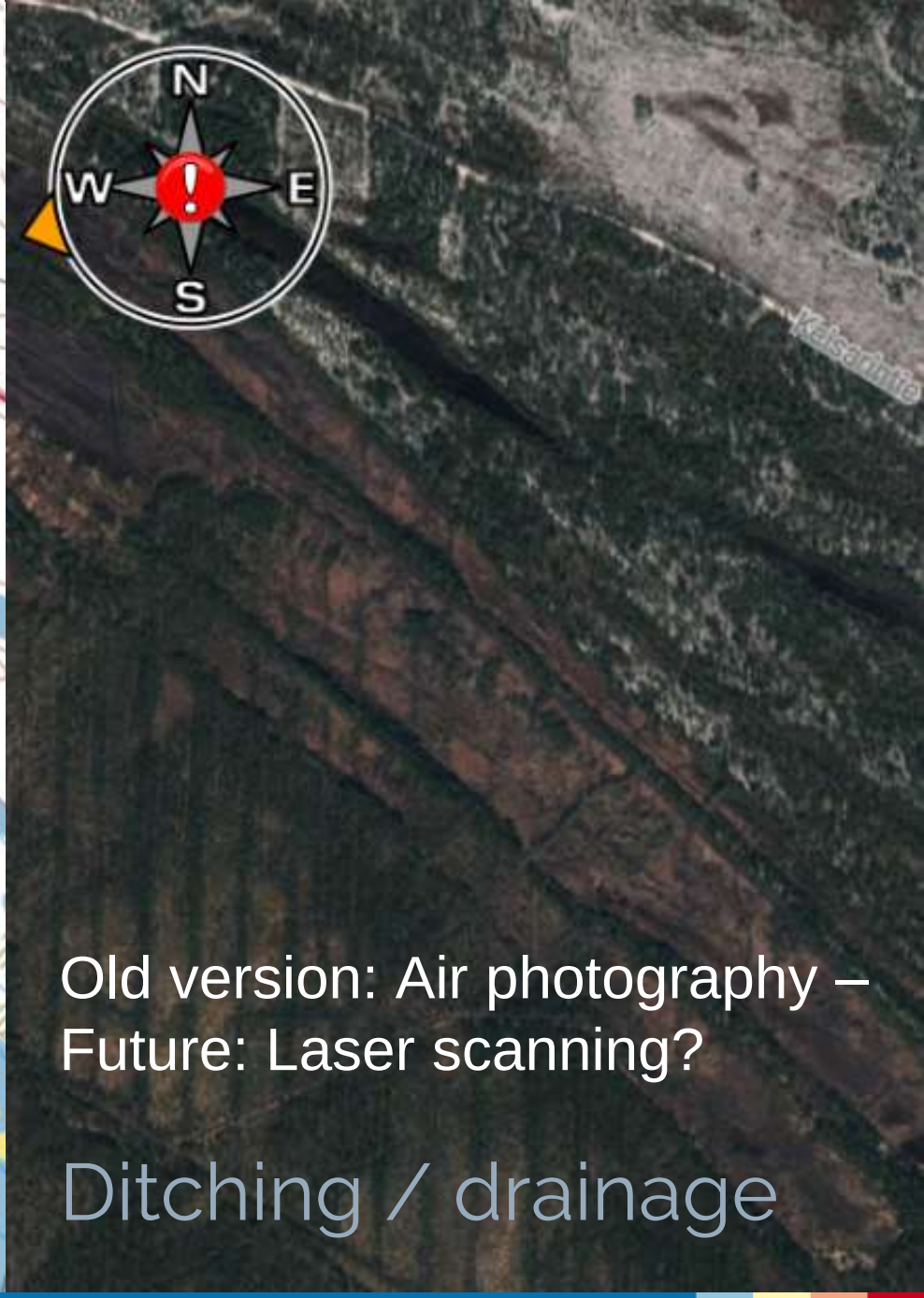
Tree stand level data on the ground

Fertility, tree species, diameter, volume, layers

EO Tree stand level data

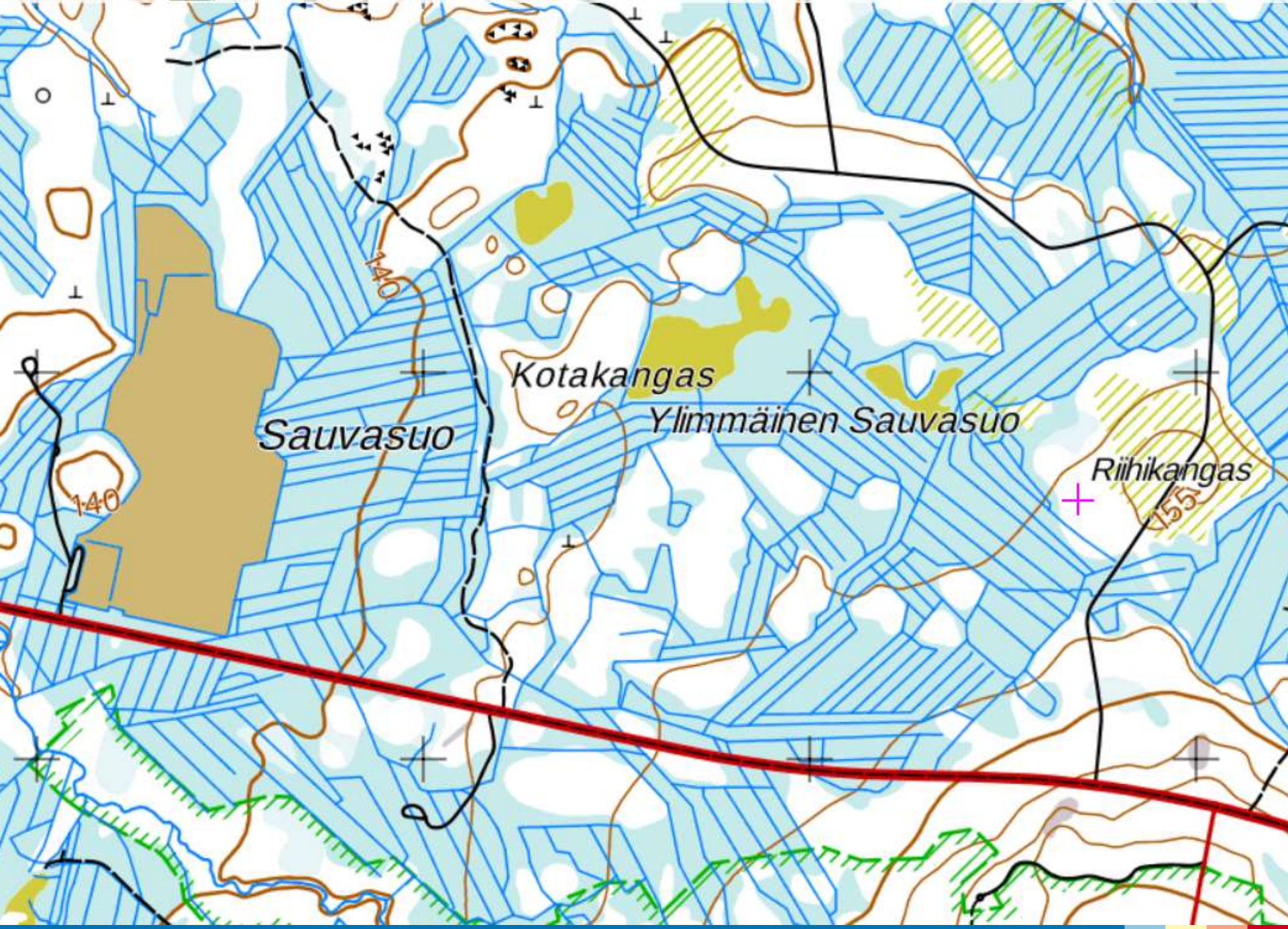
Help from the new dense laser data!





Old version: Air photography –
Future: Laser scanning?

Ditching / drainage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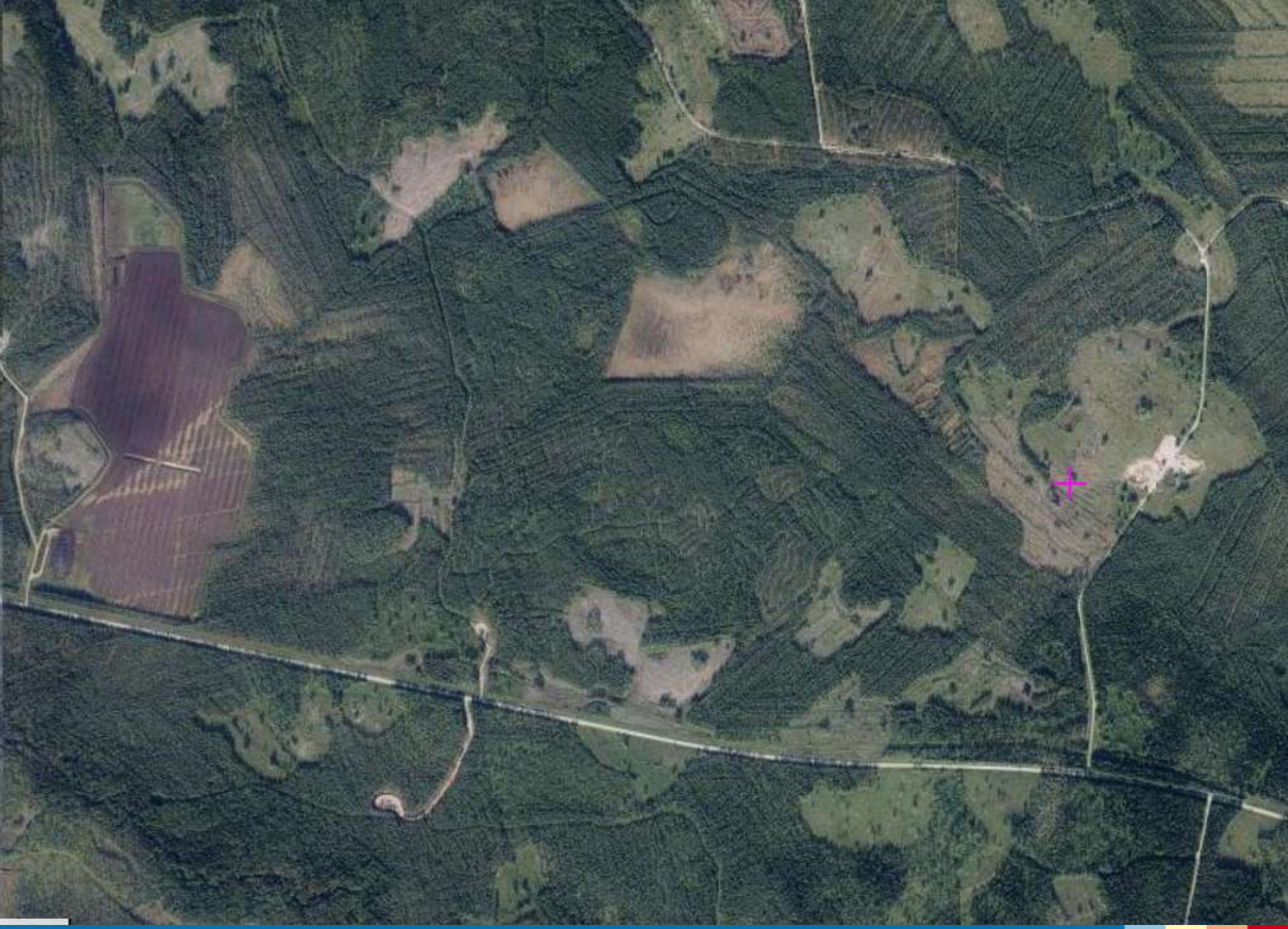

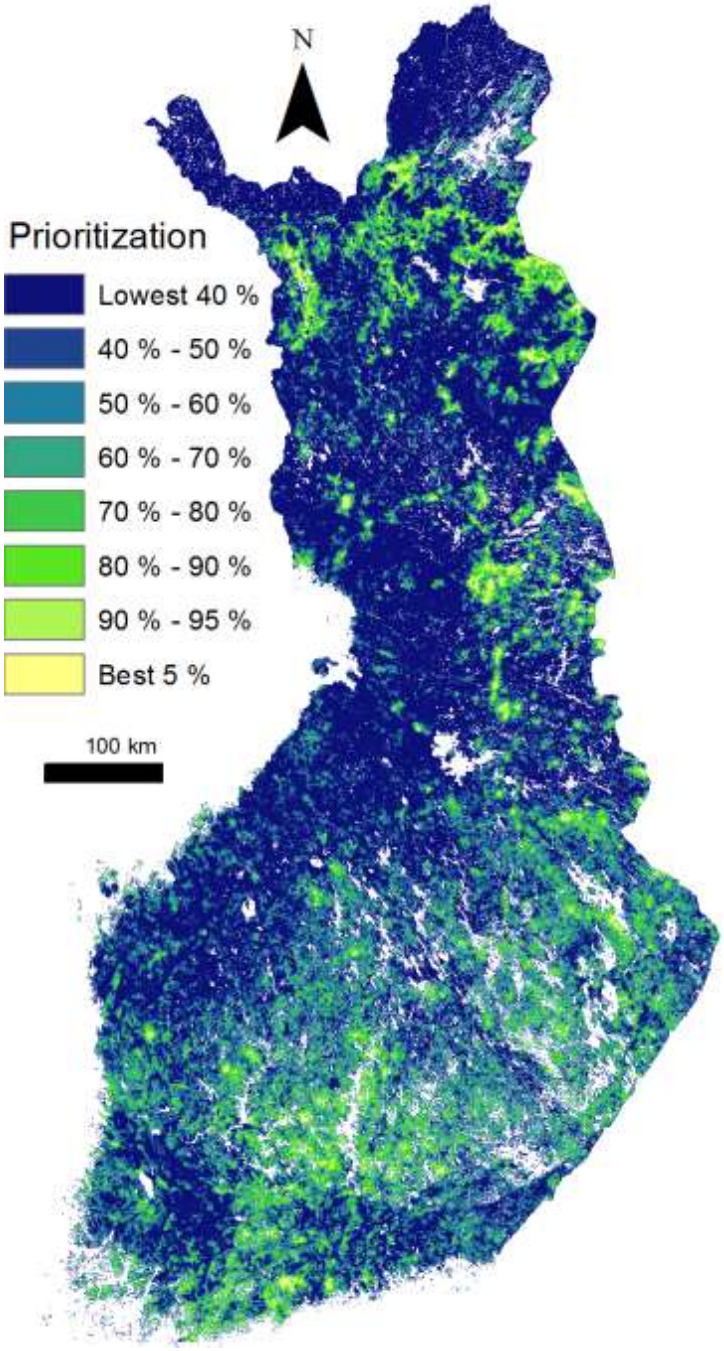

Conclusion

1. EO data had very big role in these anlysis
2. EO data usually collected for othe purposes than BD conservation – modelling etc. needed.
3. New EO data is needed!
4. Information of forest structure crucial for forest biodiversity reseach

Thank you for listening!

Thank you for co-operation and funding!

Ympäristöministeriö
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Ministry of the Environment

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Ministry of Agriculture And Forestry

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