The condition of European forests mapped by a global statistical standard

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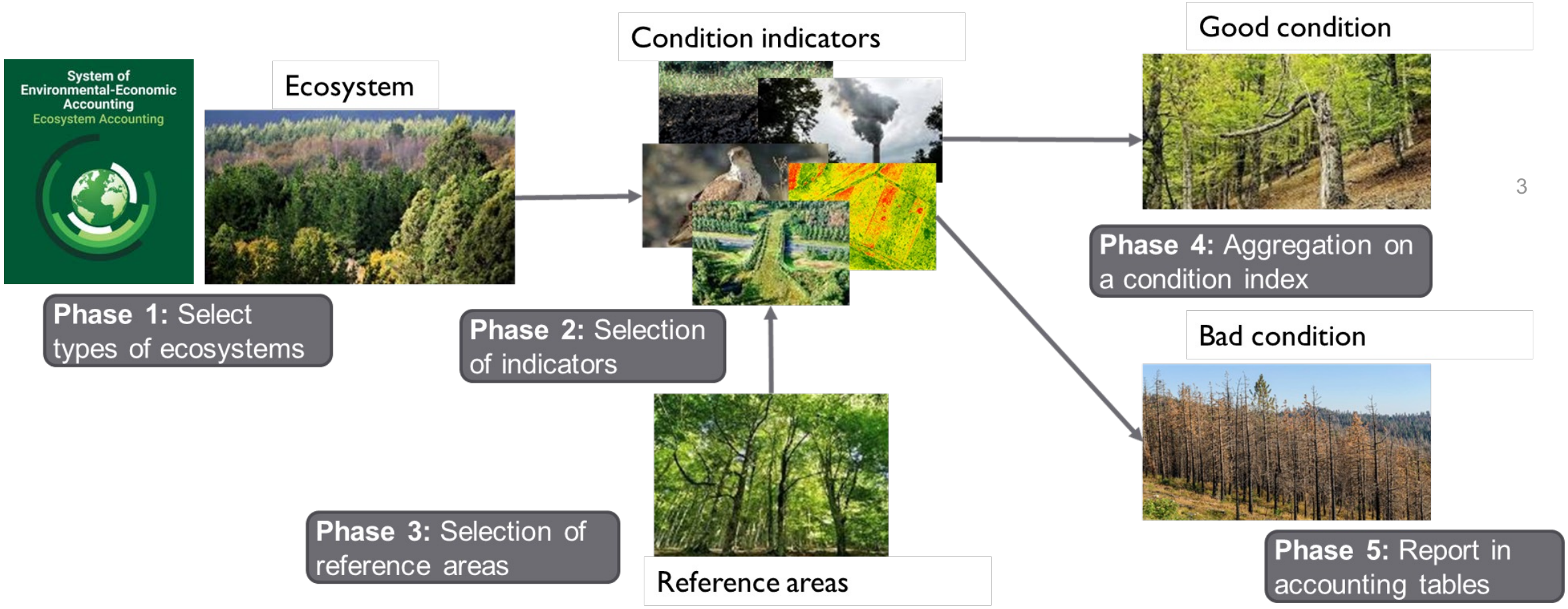
Objectives

- Provide regularly updated, spatial, harmonised data on forest ecosystem condition at EU scale
- Assess forest degradation, guide forest restoration planning
- Test the UN guidelines on ecosystem accounting and the EU methodology for ecosystem condition

Link to the study: https://www.nature.com/articles/s41467-023-39434-0

The assessment of forest ecosystem condition followed rigorously the biophysical guidelines of the SEEA EA framework (Chapter 5). Under this framework, **ecosystem condition is defined as the quality of an ecosystem measured in terms of its abiotic and biotic characteristics.**



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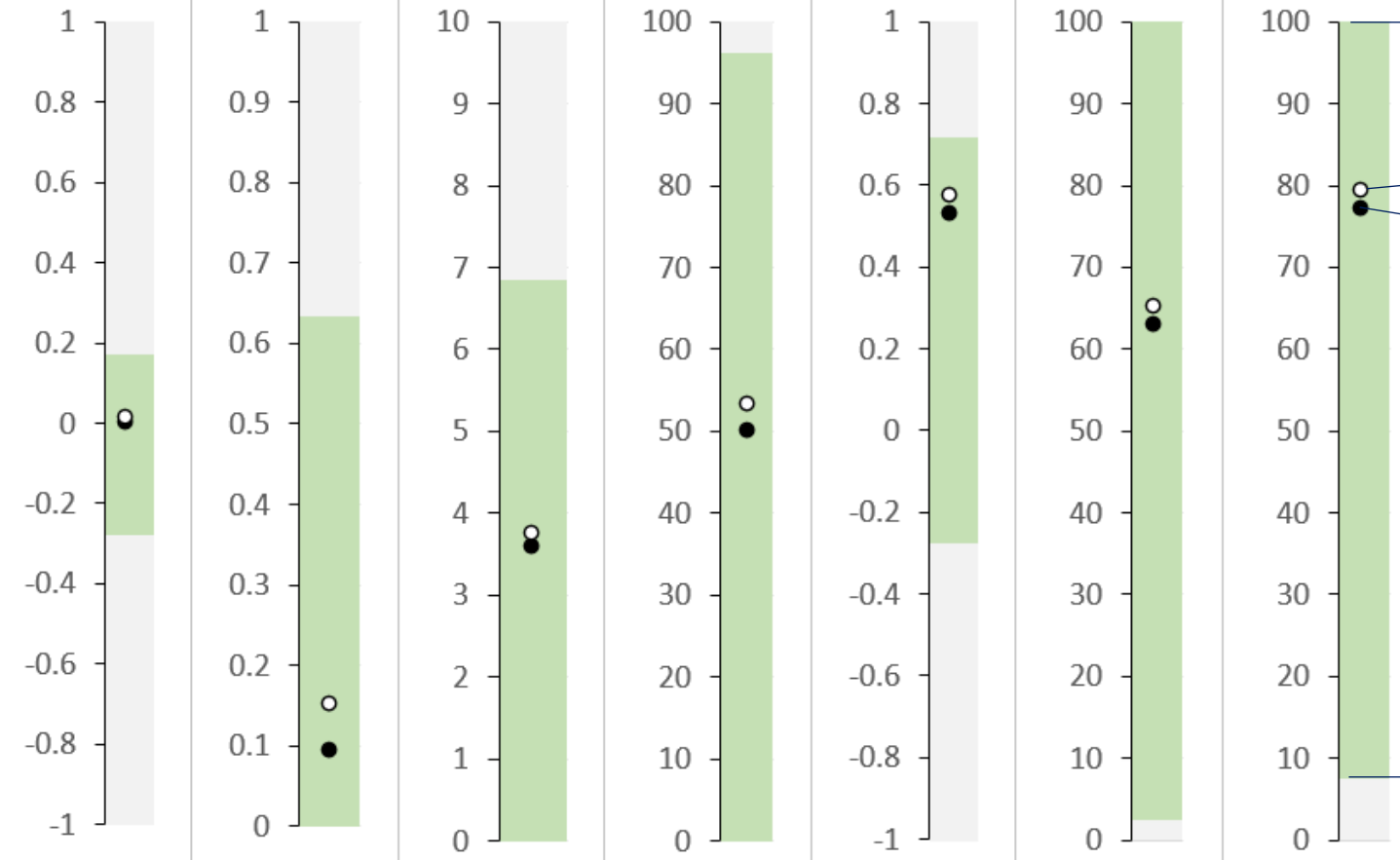
Water content - Normalized difference water index (NDWI)	**Soil organic carbon**	**Species richness of threatened forest birds**	**Tree cover density**	**Forest productivity** - Normalized difference vegetation index (NDVI)	**Forest connectivity**	**Landscape naturalness**
Index between -1 and 1	Index between 0 and 1	Number	%	Index between -1 and 1	%	%



7 indicators based on typology and selection criteria from SEEA EA

Upper reference level based on reference sites (primary forest or undisturbed protected forest)

Indicator value for 2018

Indicator value for 2000

Lower reference level

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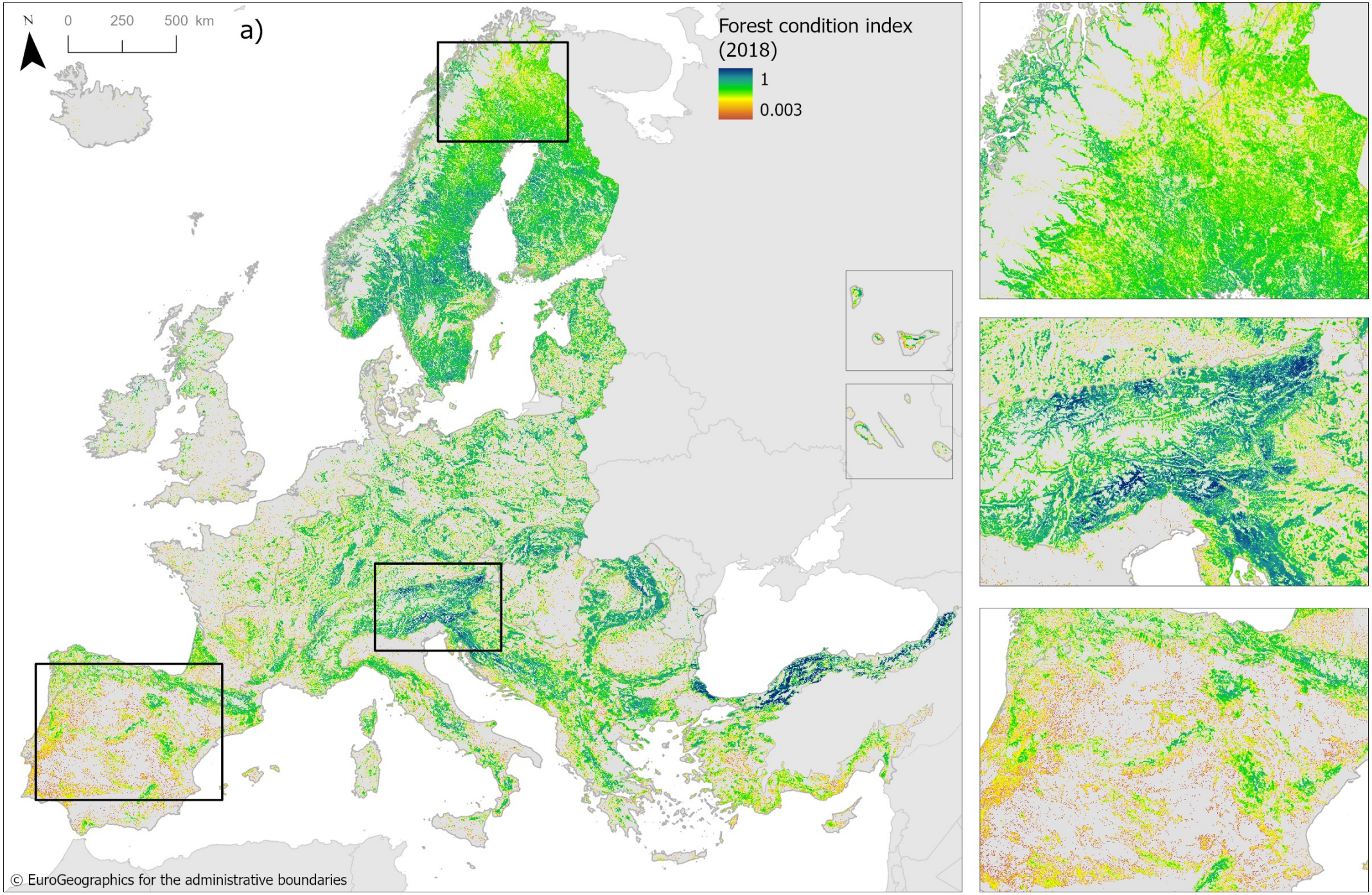
N
0
250
500 km
a)
Forest condition index
(2018)
1
0.003
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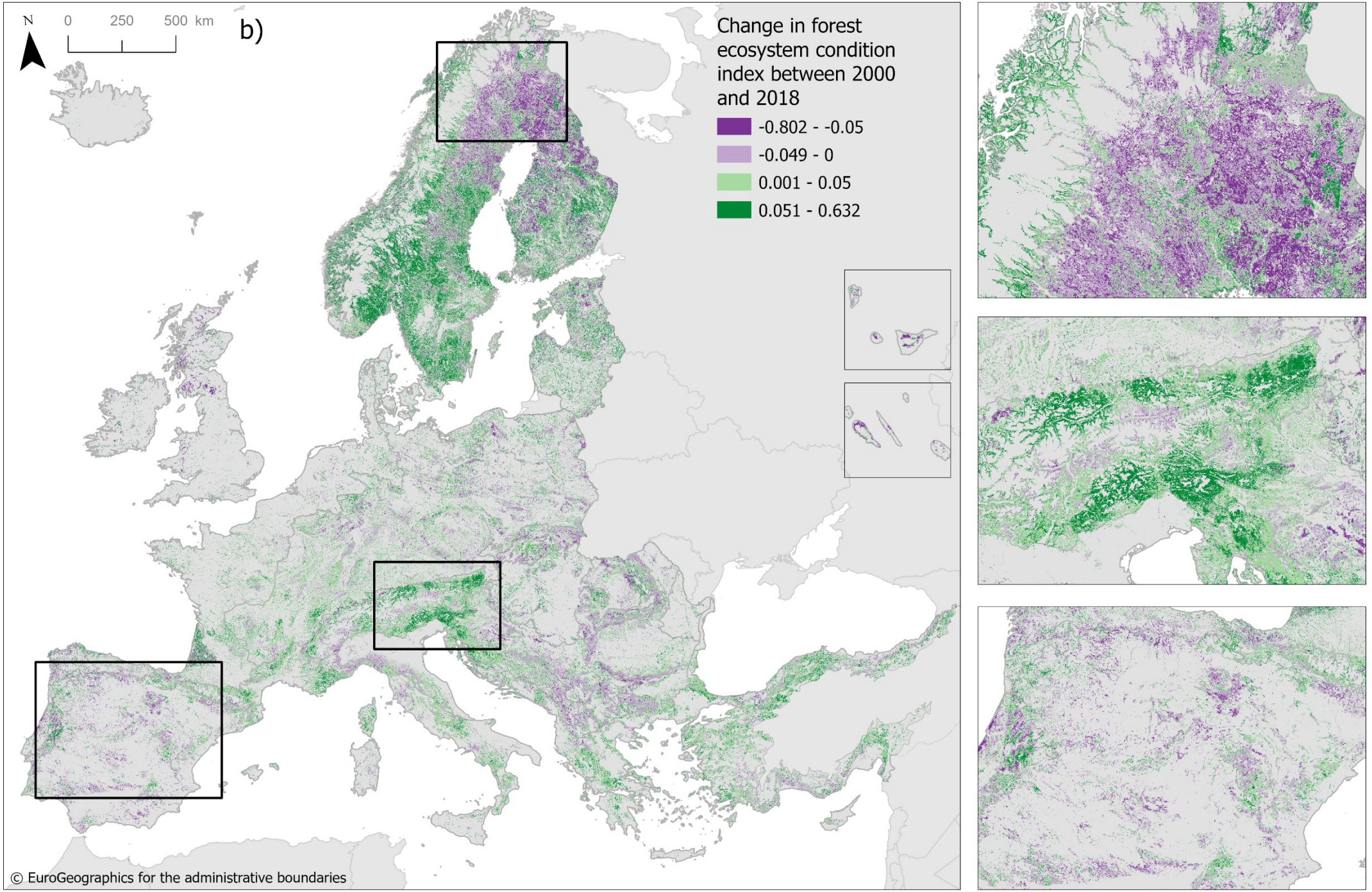
N
0
250
500 km
b)
Change in forest ecosystem condition index between 2000 and 2018
-0.802 - -0.05
-0.049 - 0
0.001 - 0.05
0.051 - 0.632
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Conclusions and follow up

- **Forest condition averaged 0.58 in 2018, 2% up from 2000**; **one third of the forest area experiences declining conditions**
- Test forest condition at national or regional levels using SEEA EA/EU methodology; consider other condition indicators: dead wood, tree species richness, defoliation, tree growth, age structure
- Correspondence with condition reporting for Annex 1 forest habitats
- Reference levels; threshold between favorable and unfavourable condition

Thank you

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