

High Nature and Cultural Heritage Values with the Challenge of Marginalisation

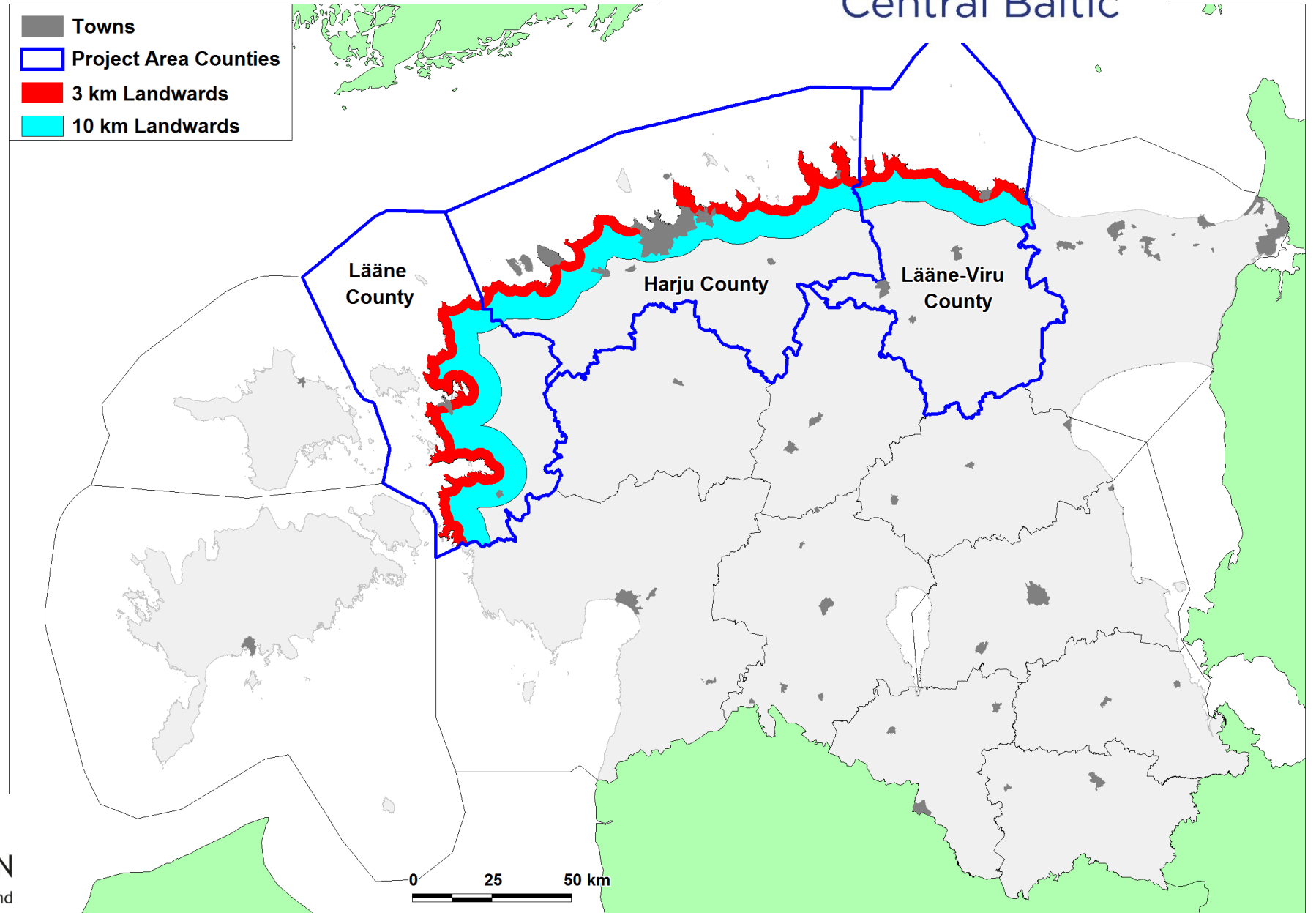
Siiri Külm, Janar Raet, Anne Kull, Kalev Sepp, Pille Tomson,
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Estonian University of Life Sciences, Tallinn University



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Estonian
project area
with possible
buffers towards
inland



4 sets of thematic maps were produced for project area (3 counties) containing cartographic information from several available sources:

- High value nature areas
- Land/Sea use
- Marginalization and sparsely populated areas
- Cultural Heritage




















Several layers were incorporated, mainly originating from Environmental Register

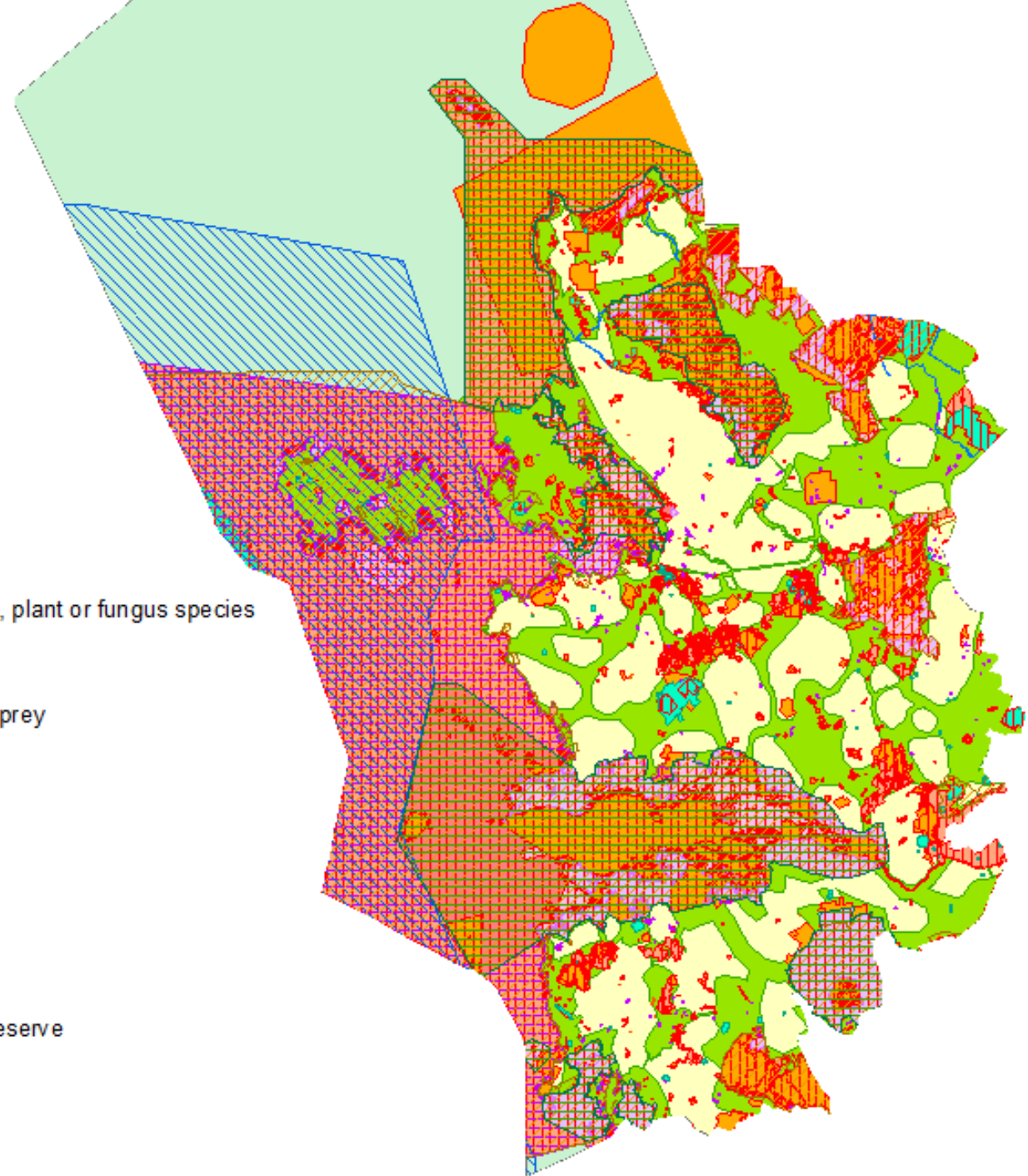
- The natural habitat of a protected animal, plant or fungus species
- Woodland key habitat
- Species' protection site
- The spawning site of salmon or river lamprey
- Strict nature reserve
- Protected area
- Conservation zone
- Limited management zone
- Limited-conservation area
- Karst area
- Nitrate sensitive area
- Green network
- West Estonian Archipelago Biosphere Reserve
- Natura nature and bird area
- Important Bird and Biodiversity area
- Helcom area
- Ramsar area



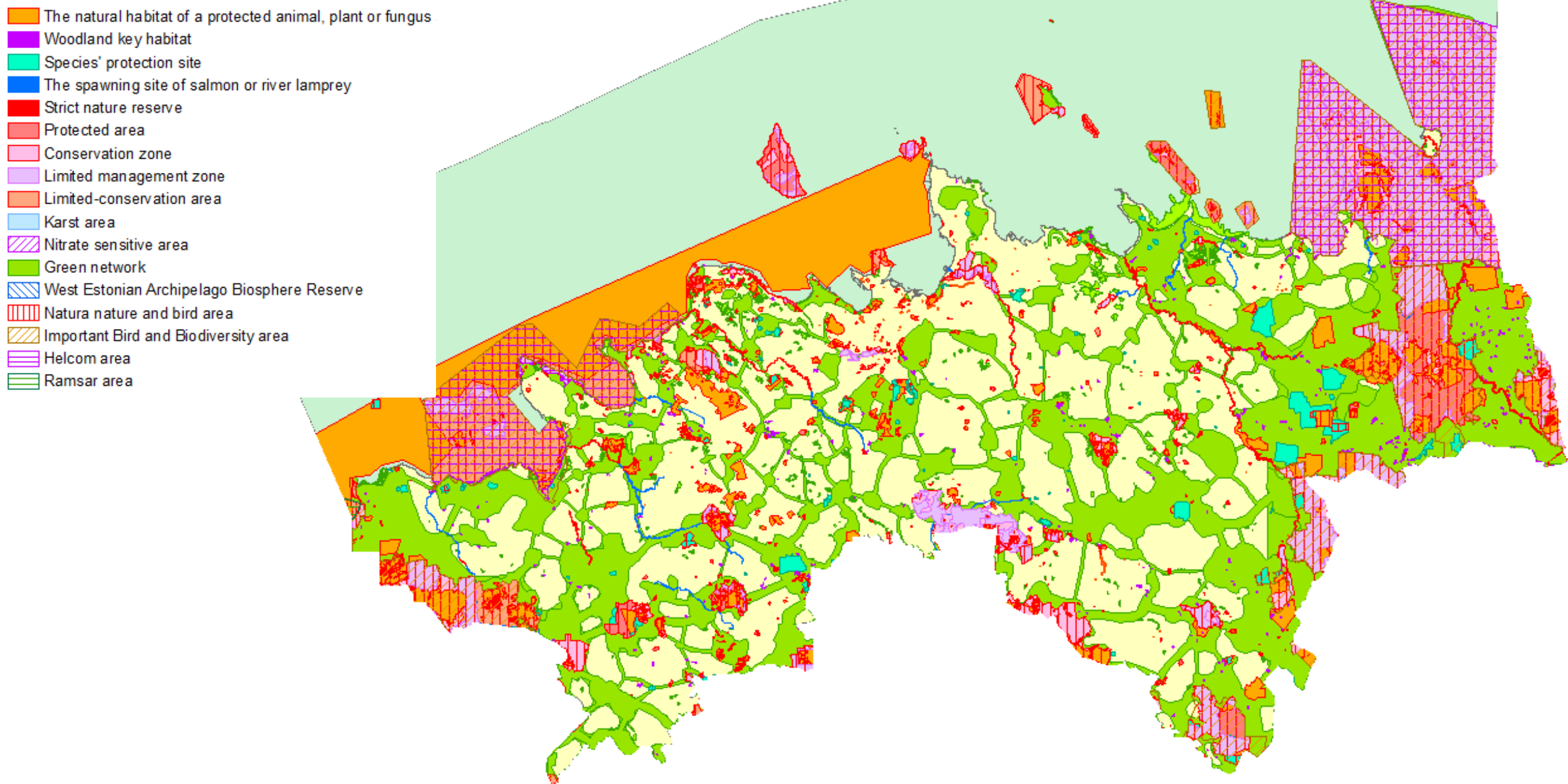
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High value nature areas Lääne County

-  The natural habitat of a protected animal, plant or fungus species
-  Woodland key habitat
-  Species' protection site
-  The spawning site of salmon or river lamprey
-  Strict nature reserve
-  Protected area
-  Conservation zone
-  Limited management zone
-  Limited-conservation area
-  Karst area
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-  Green network
-  West Estonian Archipelago Biosphere Reserve
-  Natura nature and bird area
-  Important Bird and Biodiversity area
-  Helcom area
-  Ramsar area

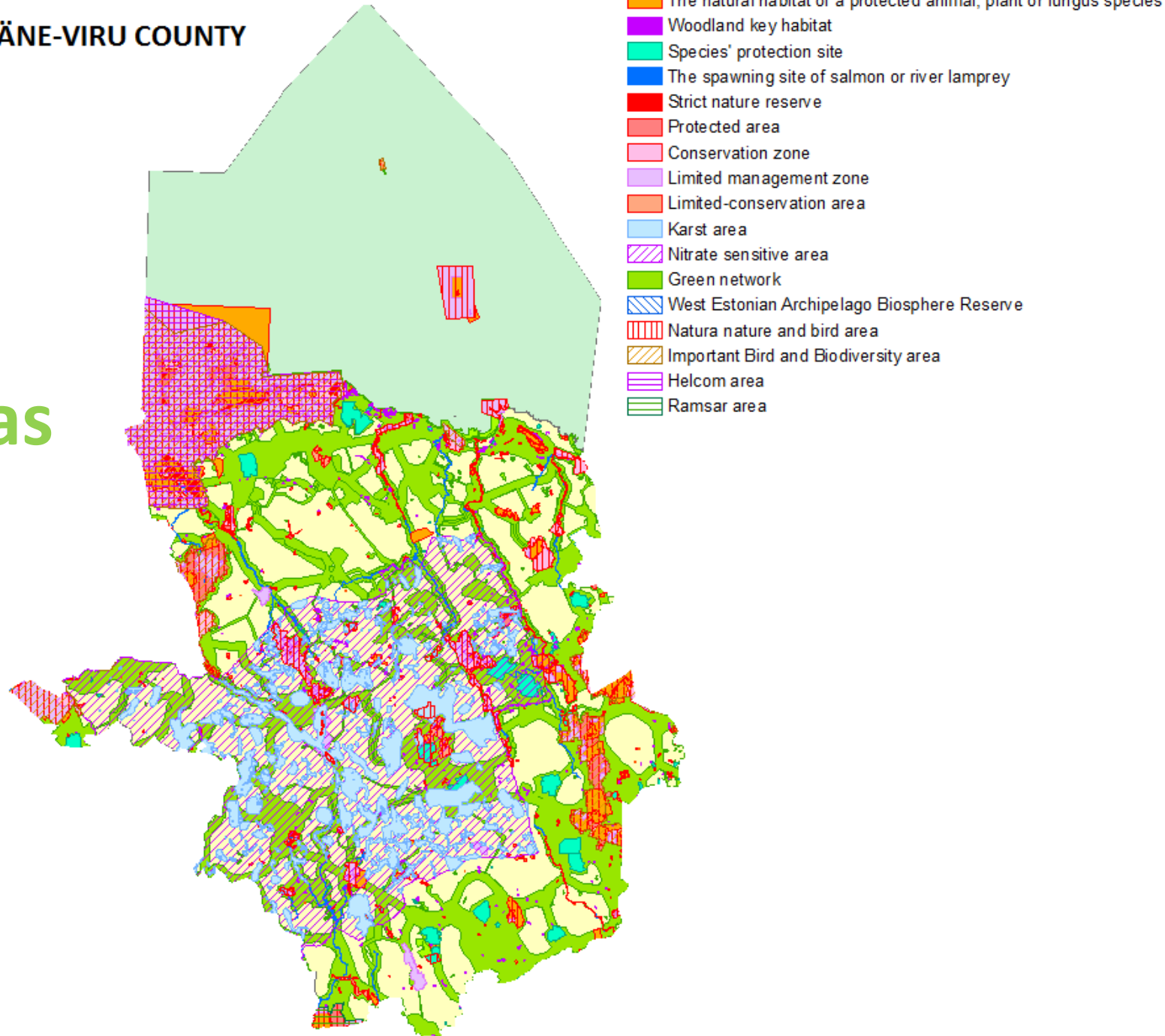


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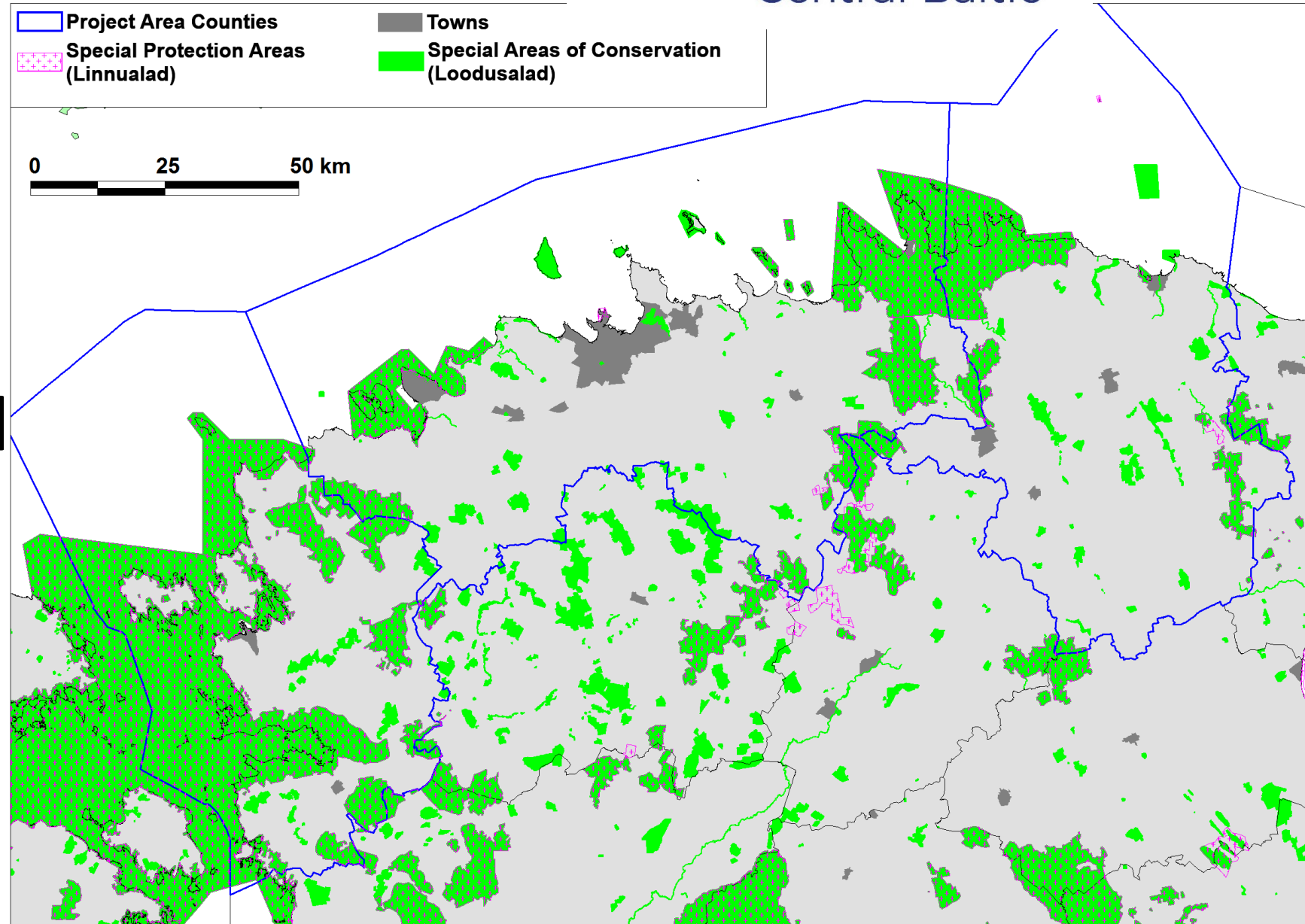


High value nature areas, Harju County

High value nature areas Lääne-Viru County



More than 50%
of Lääne County's
sea area is covered
by Natura 2000
SPAs & SACs
























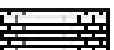




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Land/Sea use



Several layers were incorporated, mainly originating Estonian Basic Map and Mineral Resources Map (Estonian Landboard), Nautical charts (Maritime Administration)

	Forest		
	Agricultural land		
	Valuable agricultural land		
	Grassland		
	Wetland		
	Peat mining area		
	Waterbody		
	Yard		
	Town		
	Road		
	Railway		
	Sea cable		
	Wreck		
	Diveable wreck		
	Recreational facility/trail		
	Beach		
	Harbour		
	Wind turbine		
		CAUTION AREAS AT SEA:	
			Restrictions for navigation (Nature protection)
			Military sea area
			Dumping ground
		MINERAL RESOURCES:	
			Limestone
			Sand and gravel
			Peat
			Phosphorite
			Oil shale



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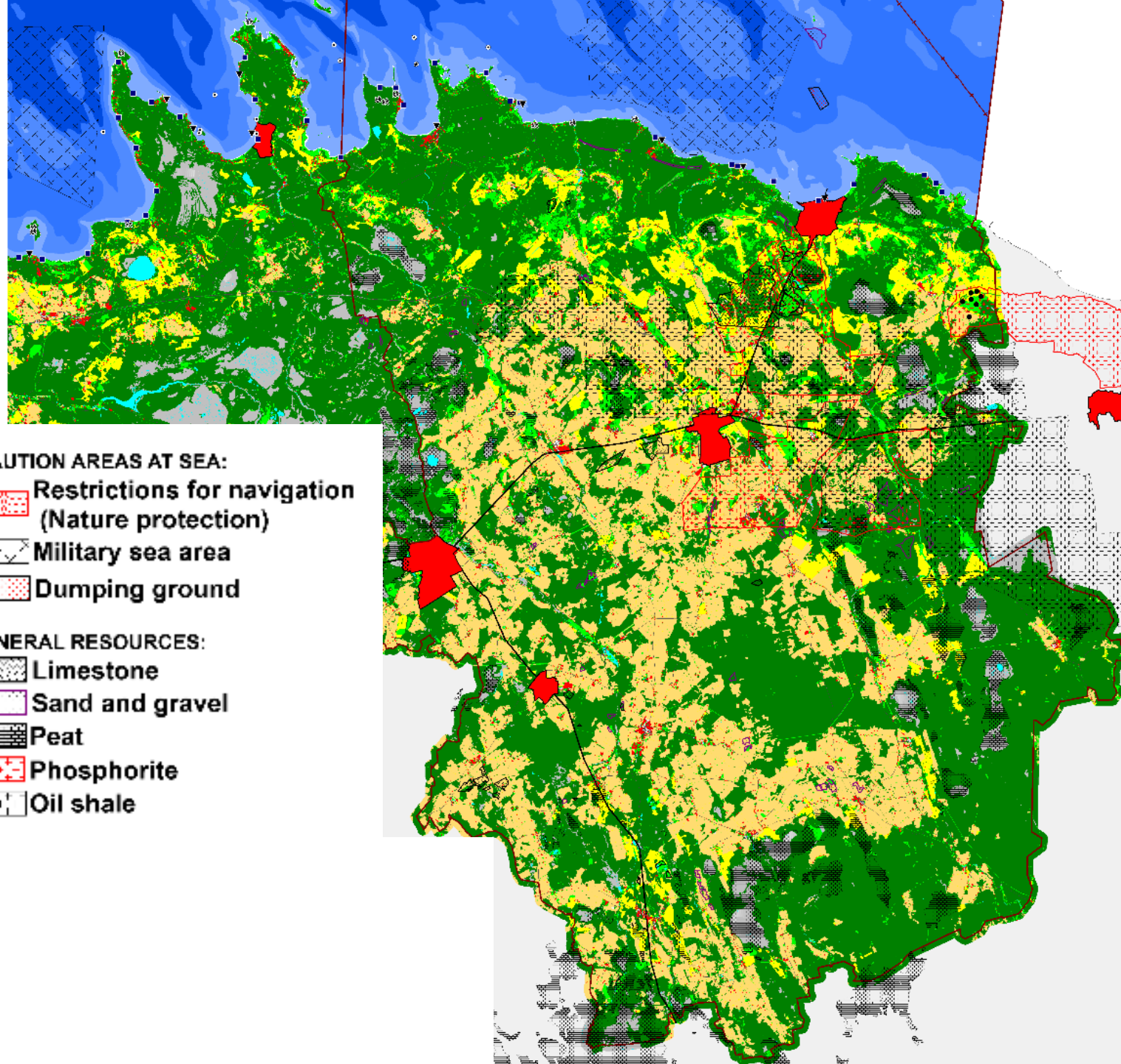
- Forest
- Agricultural land
- Valuable agricultural land
- Grassland
- Wetland
- Peat mining area
- Waterbody
- Yard
- Town
- Road
- Railway
- Sea cable
- Wreck
- Diveable wreck
- Recreational facility/trail
- Beach
- Harbour
- Wind turbine

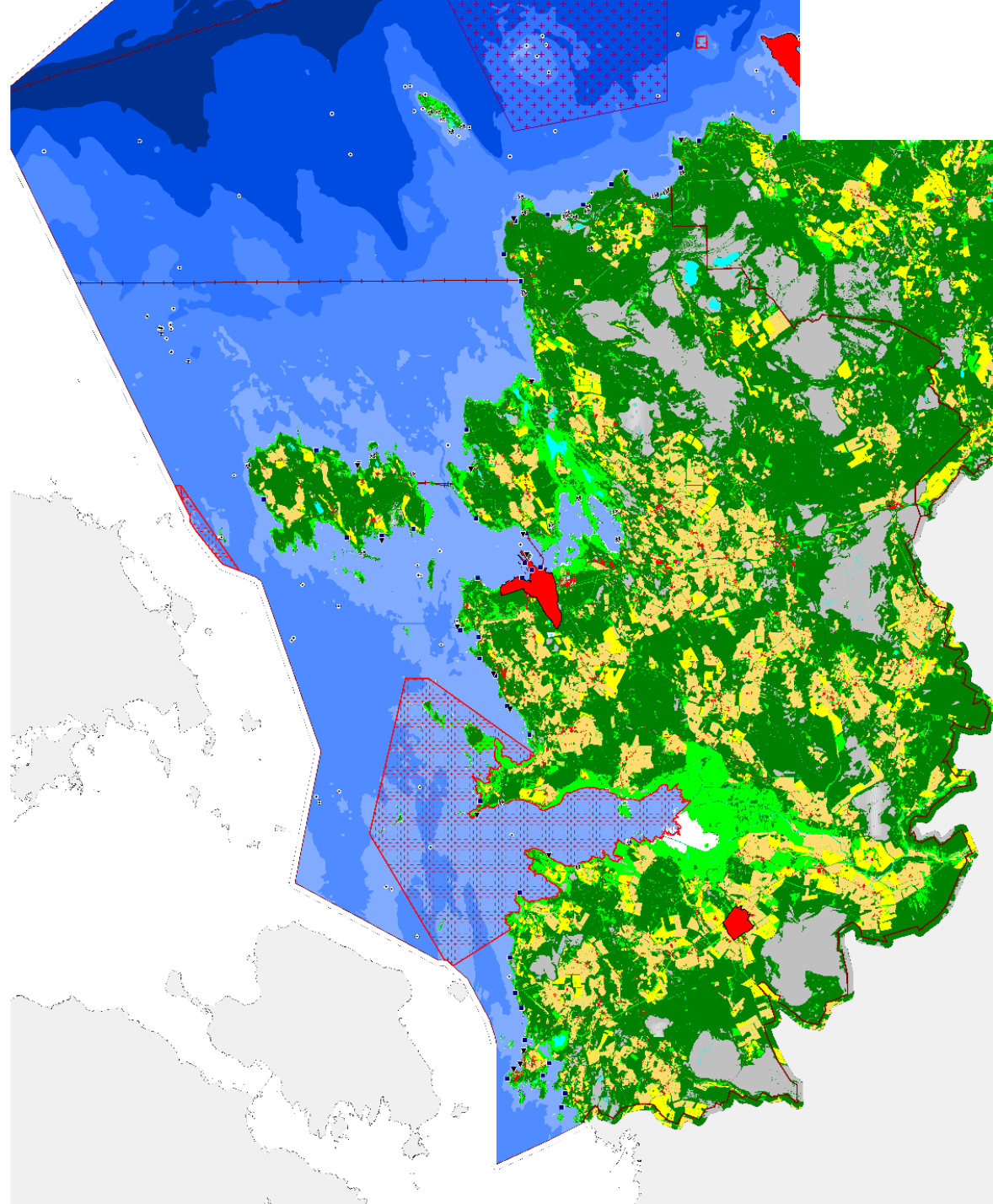
CAUTION AREAS AT SEA:

- Restrictions for navigation (Nature protection)
- Military sea area
- Dumping ground

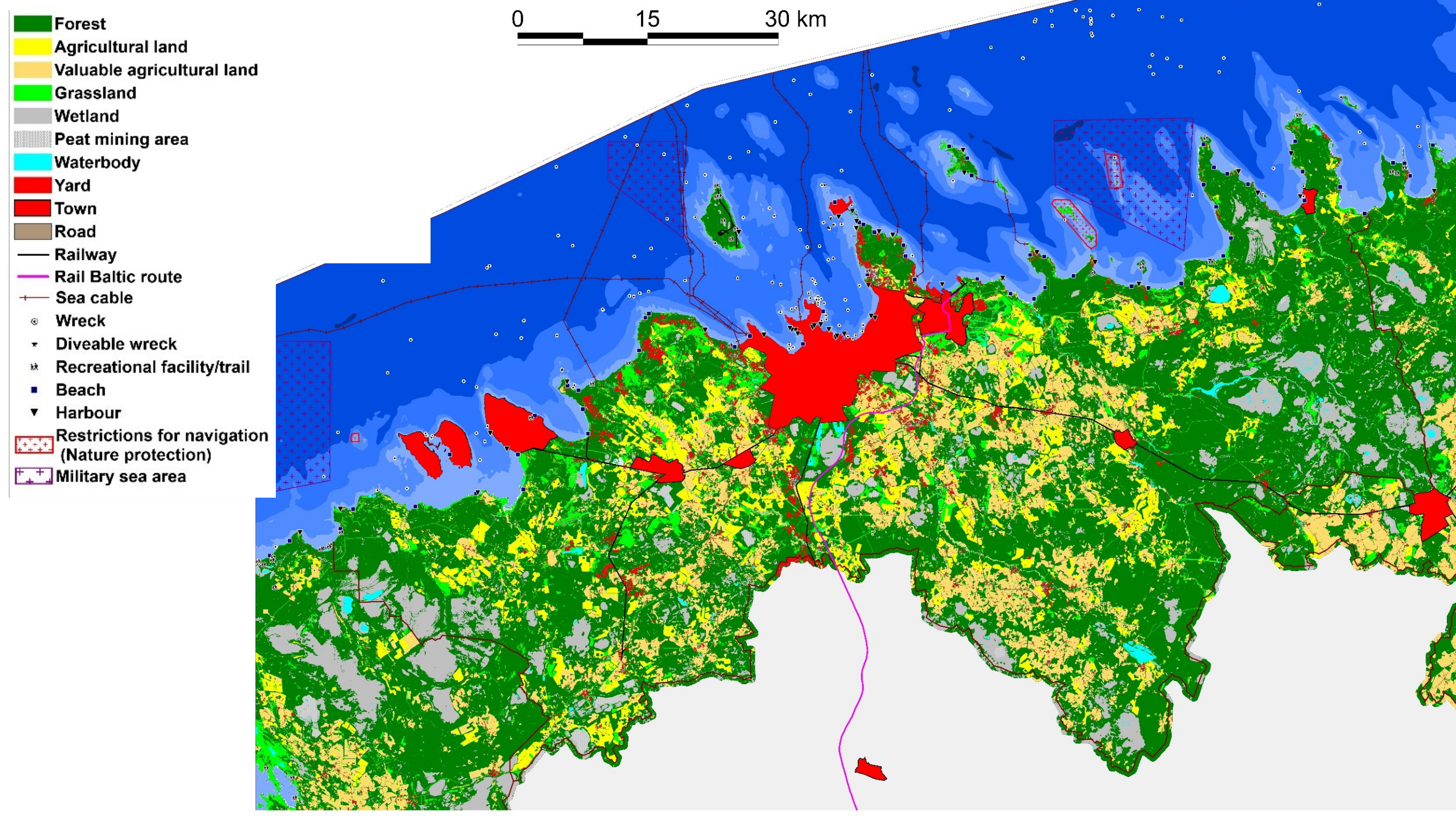
MINERAL RESOURCES:

- Limestone
- Sand and gravel
- Peat
- Phosphorite
- Oil shale





- Forest
- Agricultural land
- Valuable agricultural land
- Grassland
- Wetland
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- Road
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- Sea cable
- Wreck
- Diveable wreck
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- Harbour
- Restrictions for navigation (Nature protection)
- Military sea area



- Integrated data from different sources (RMK, National Heritage Board of Estonia, Ministry of Finance, County plans)



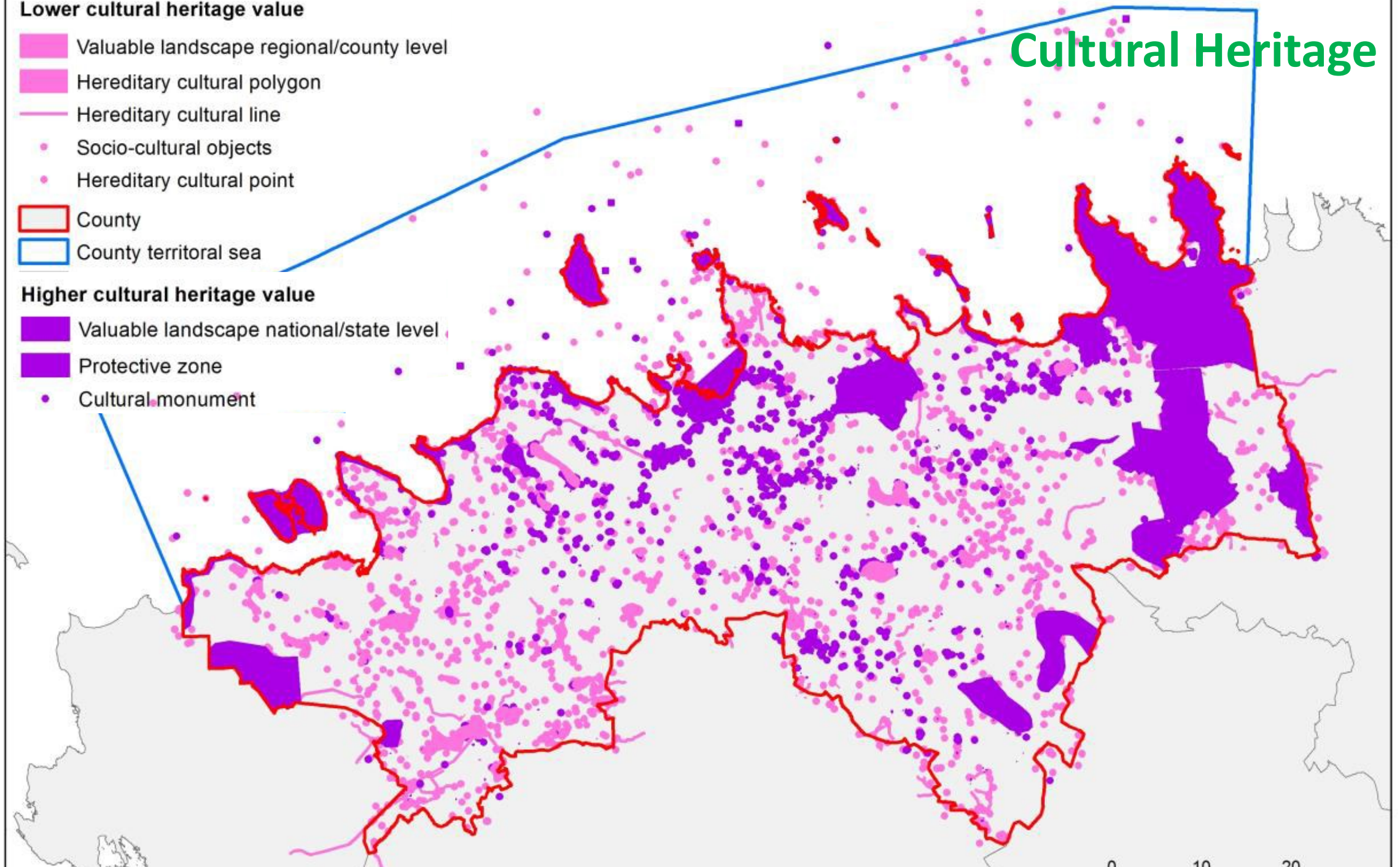
Lower cultural heritage value

- Valuable landscape regional/county level
- Hereditary cultural polygon
- Hereditary cultural line
- Socio-cultural objects
- Hereditary cultural point
- County
- County territorial sea

Higher cultural heritage value

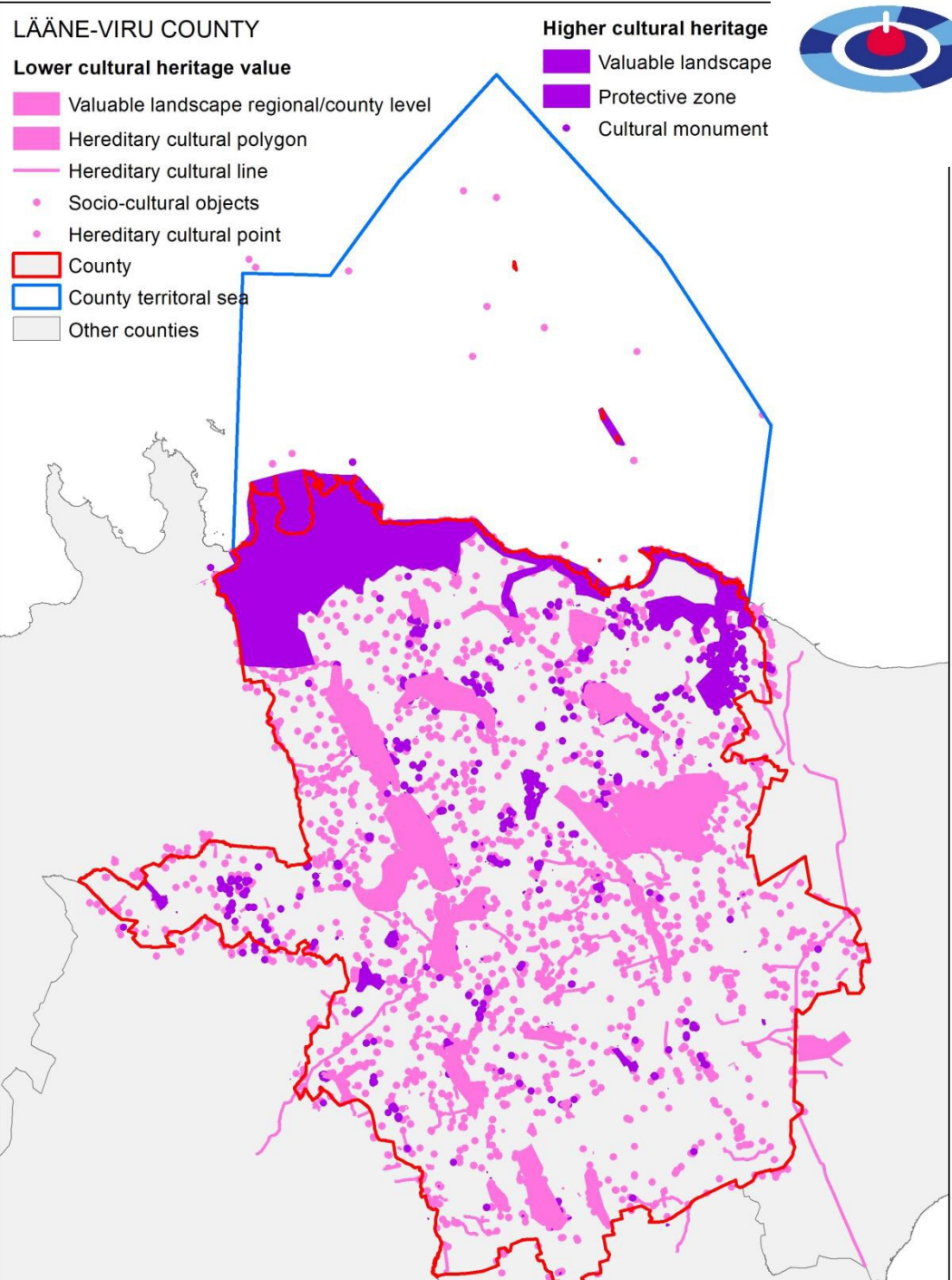
- Valuable landscape national/state level
- Protective zone
- Cultural monument

Cultural Heritage



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Lääne-Viru County



Interreg
Central Baltic

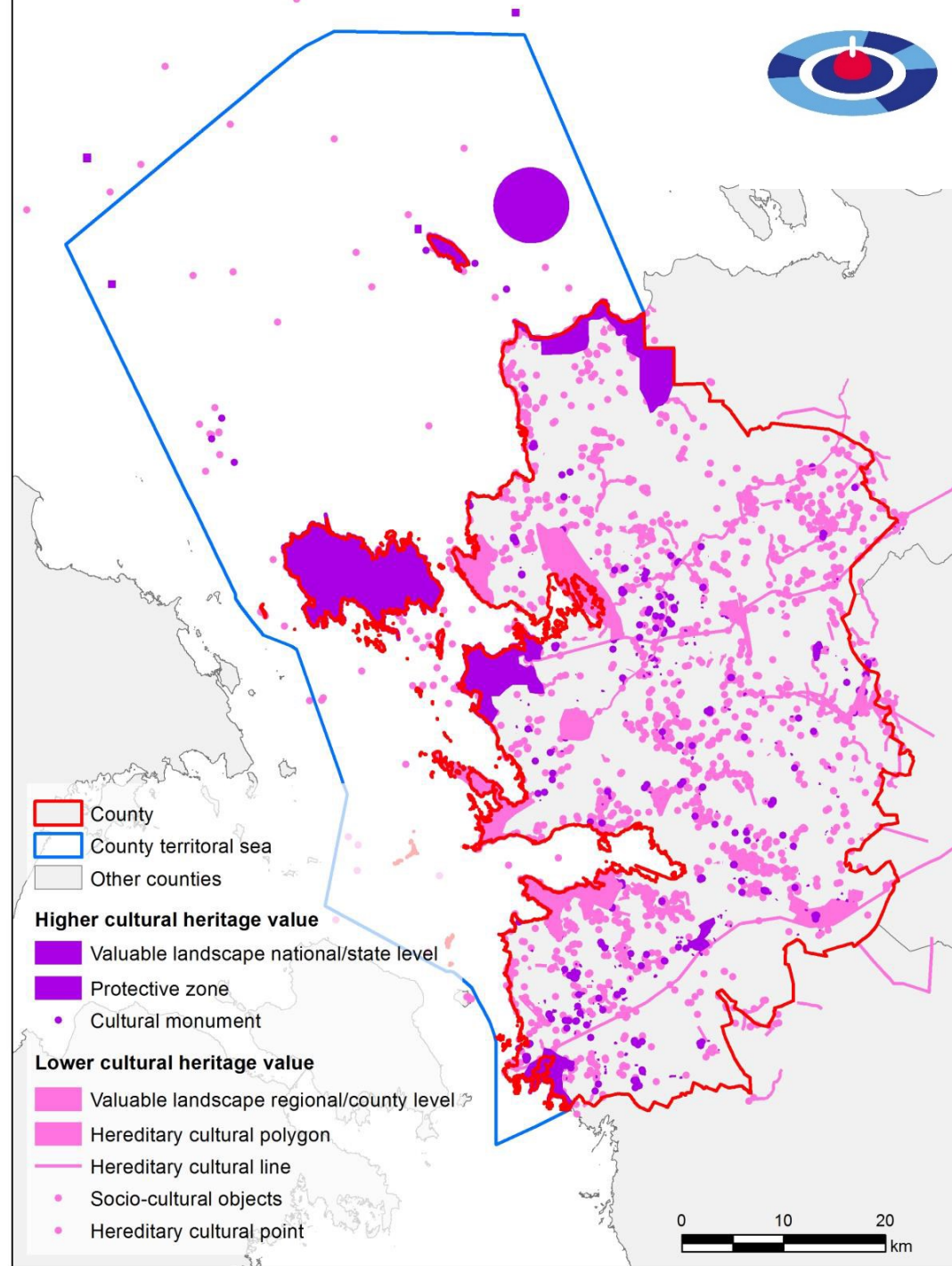


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Cultural Heritage

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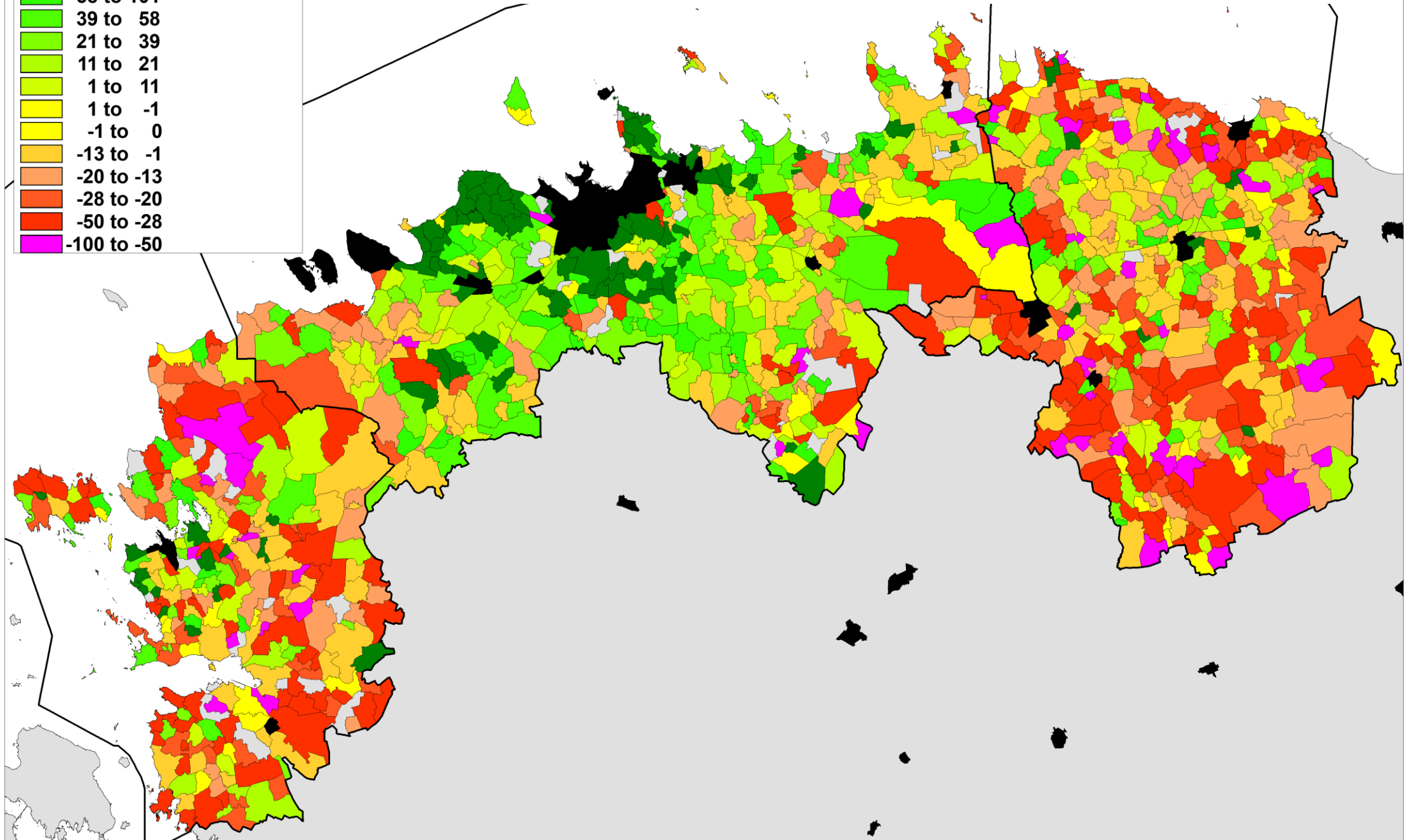
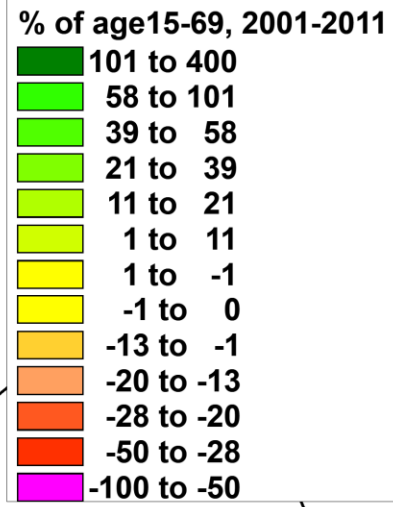
Lääne County



- Datasets derived from Estonian Statistics Censuses data from 2001 and 2011 containing demographic information



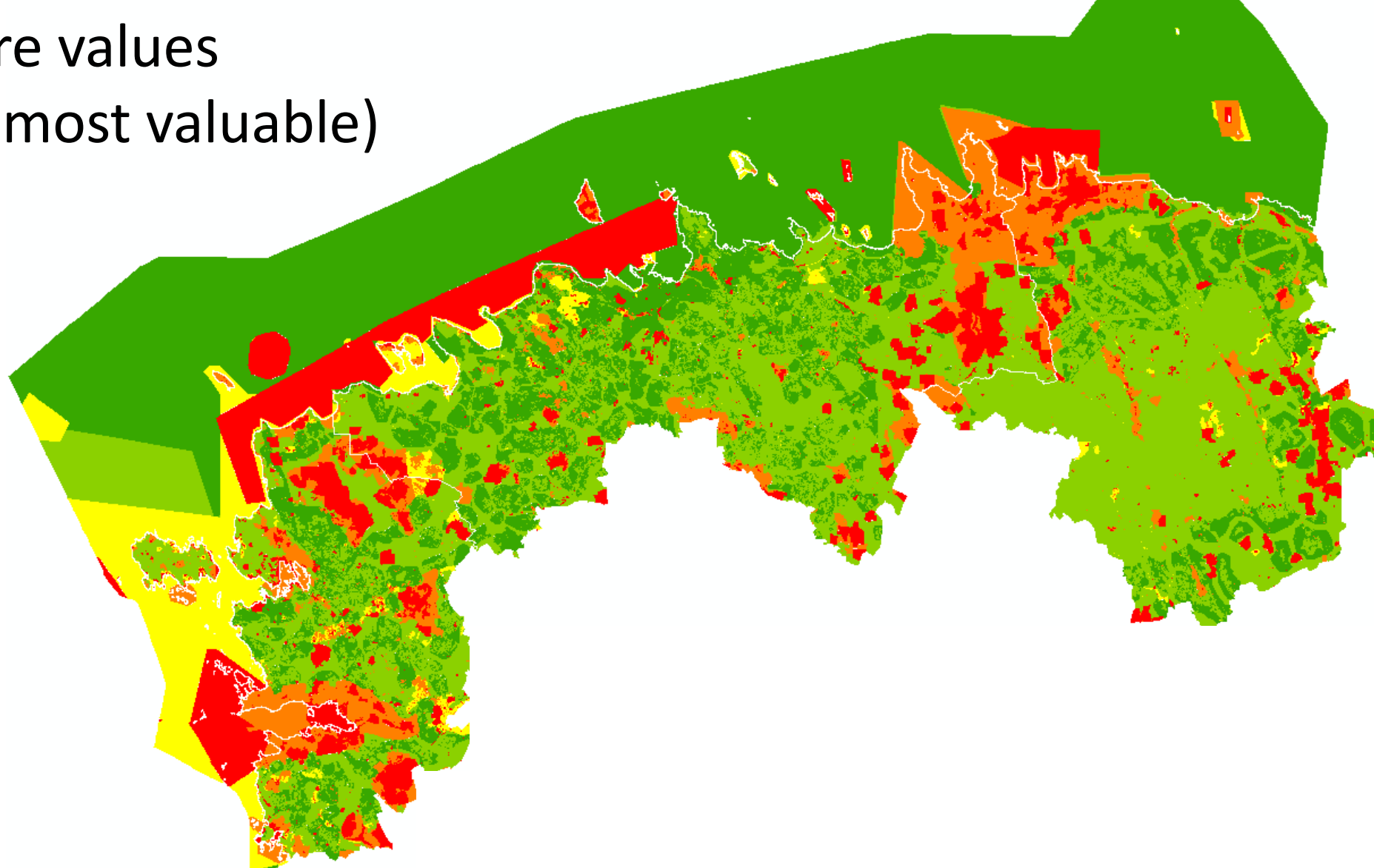
Age group 15-69years dynamics 2001 to 2011



- To generate basis for test areas selection 4 input maps were generated with classes
- As output is map of areal features, several impact areas bufferzones were generated for point and line elements in this proces

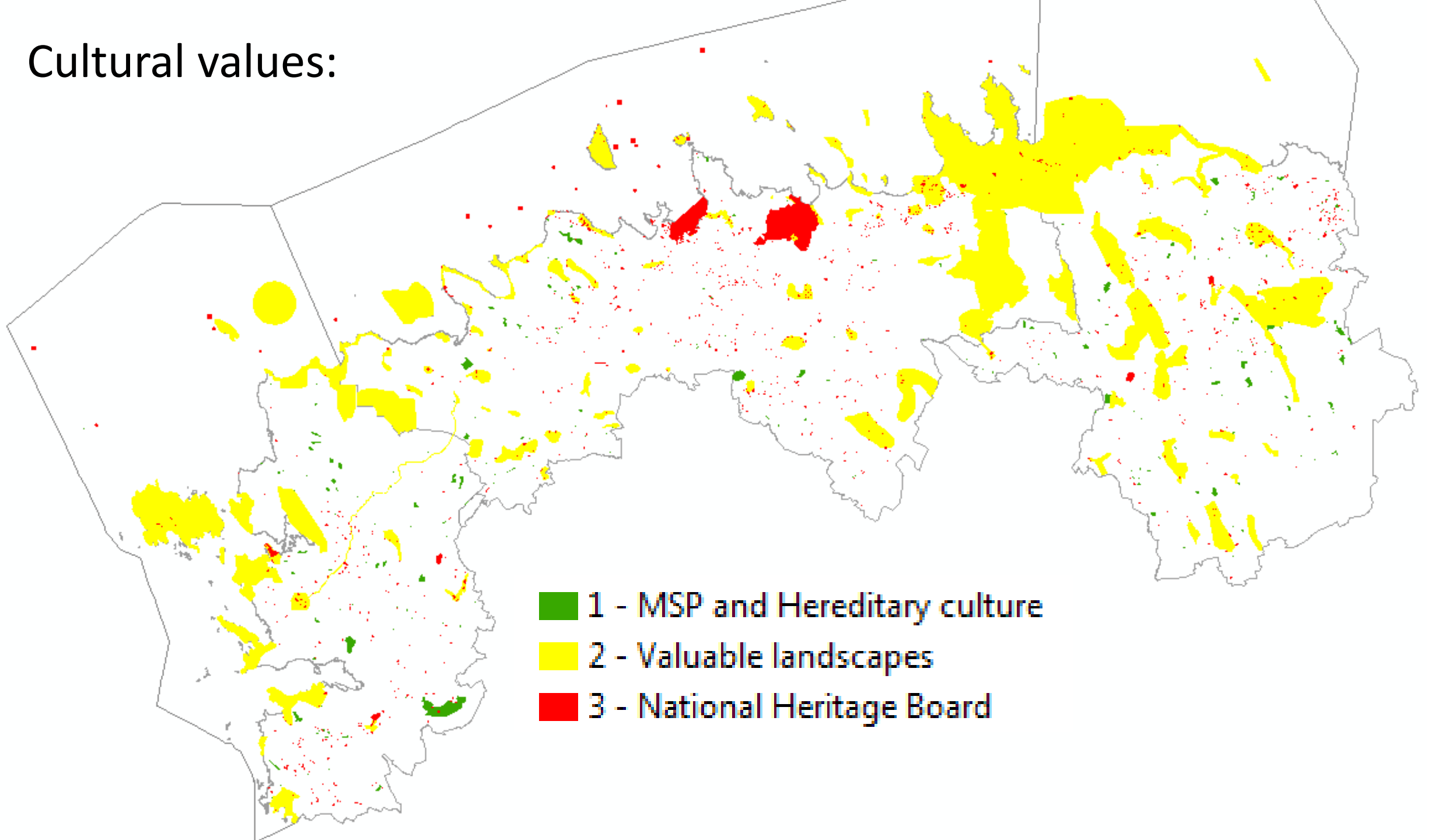


Nature values (red=most valuable)



- 1 - Other landuse
- 2 - Green network, nitrate sensitive area, karst area, valuable arable land, international protected areas (Natura habitats, bird and nature areas, biosphere reserve, IBA, Helcom, Ramsar)
- 3 - Limited-conservation area, spawning area, planned protection area or protection zone
- 4 - Limited management zone, managed conservation zone, woodland key habitat, protection zone for animal, plant and fungus species in the protected category III
- 5 - Strict nature reserve, wilderness conservation zone, species' protection site, protection zone for animal, plant and fungus species in the protected categories I and II

Cultural values:



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Pressure factors:

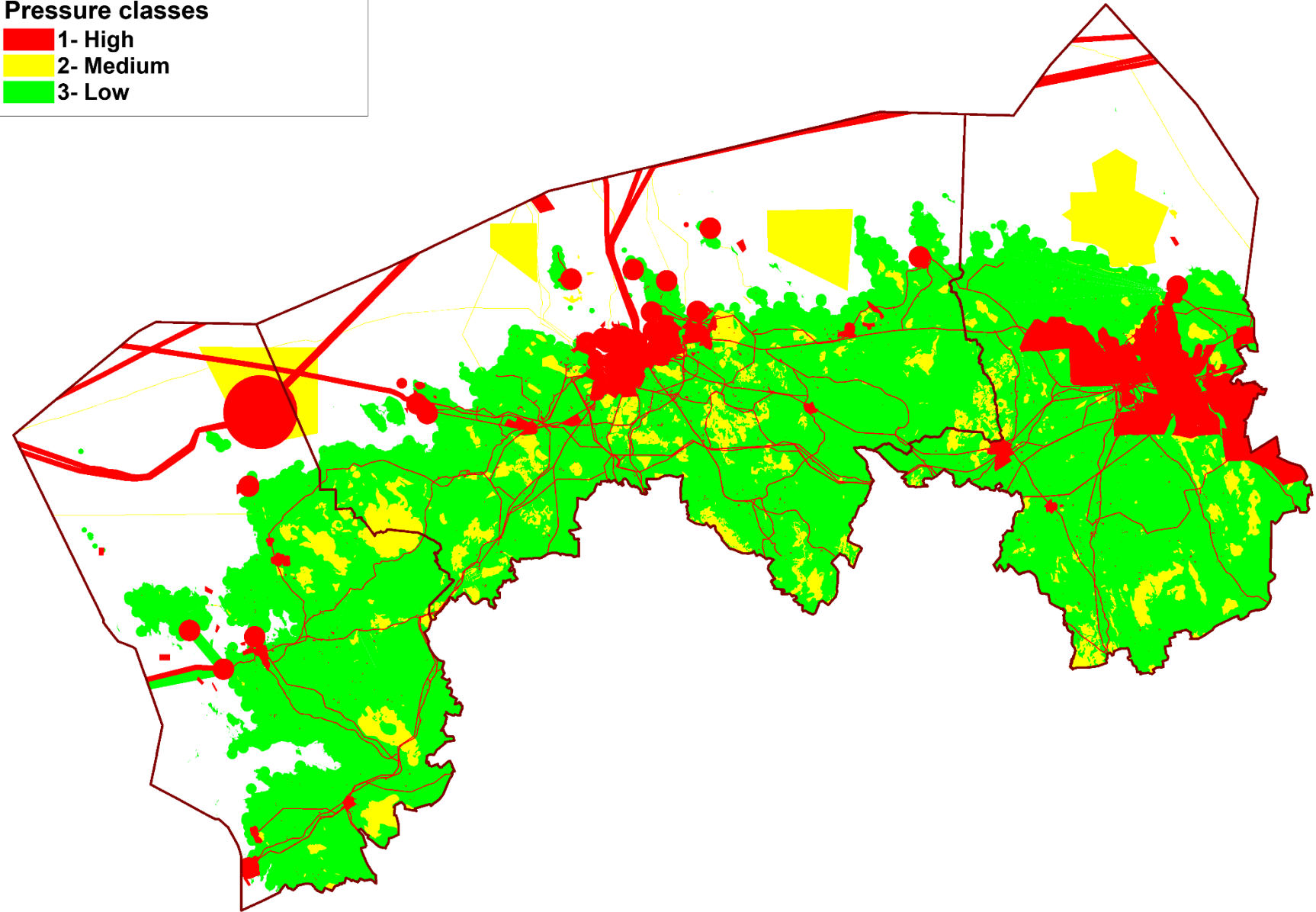
Class 1- Towns, industrial areas, Powerlines (110kV+), big harbours, „Hard“ minerals, wind turbiines, big road

Class 2- „Mild“ minerals, pipelines and cables, military areas at sea

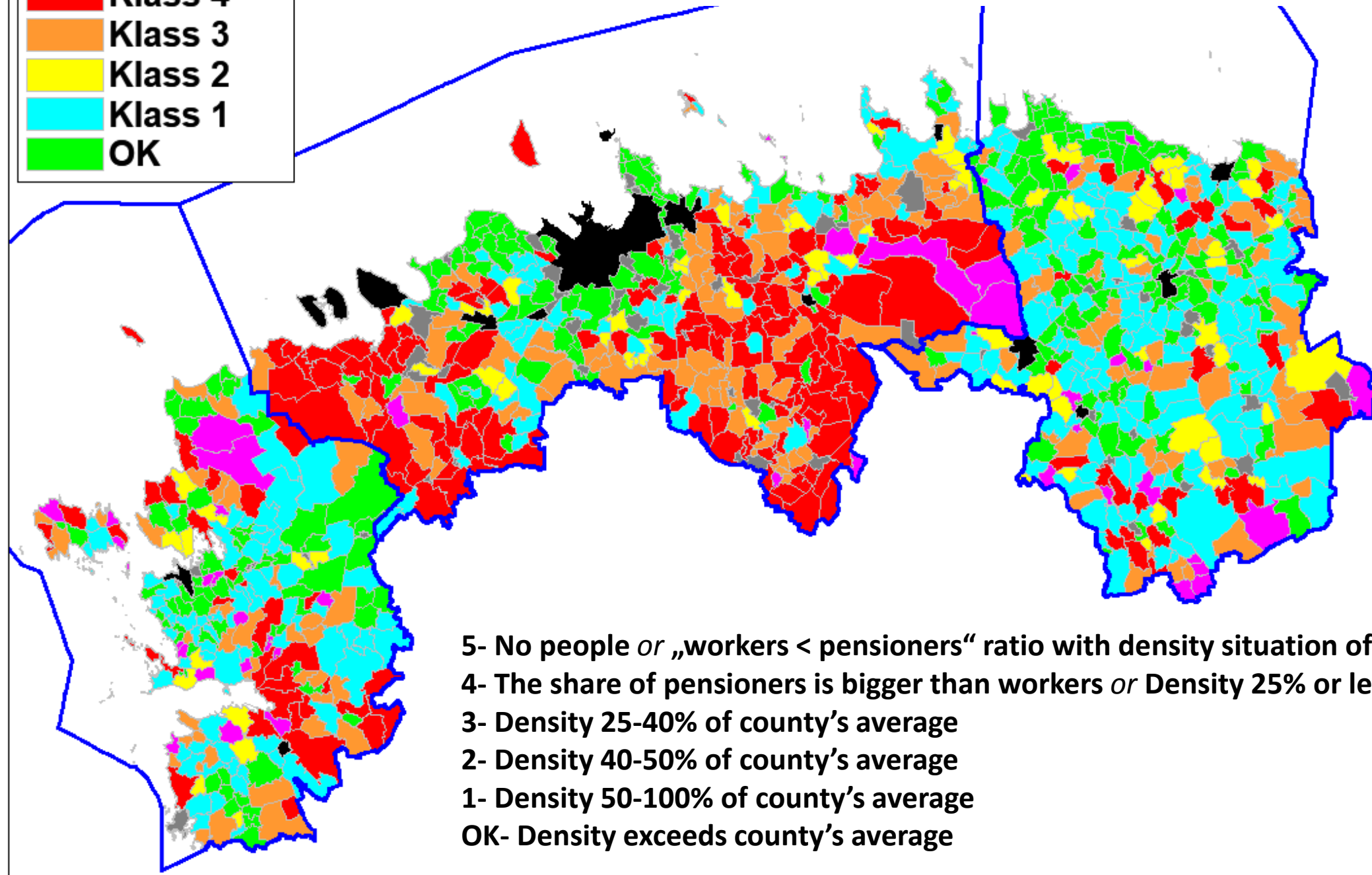
Class 3- Villages, forest, wetland, field, grassland, recreational sites, iceroad, small harbours, waterbody

Pressure classes

-  1- High
-  2- Medium
-  3- Low



Marginalization (Rural settlements, County based marks)



- 5- No people *or* „workers < pensioners“ ratio with density situation of classes 1-4
- 4- The share of pensioners is bigger than workers *or* Density 25% or less of county's average
- 3- Density 25-40% of county's average
- 2- Density 40-50% of county's average
- 1- Density 50-100% of county's average
- OK- Density exceeds county's average

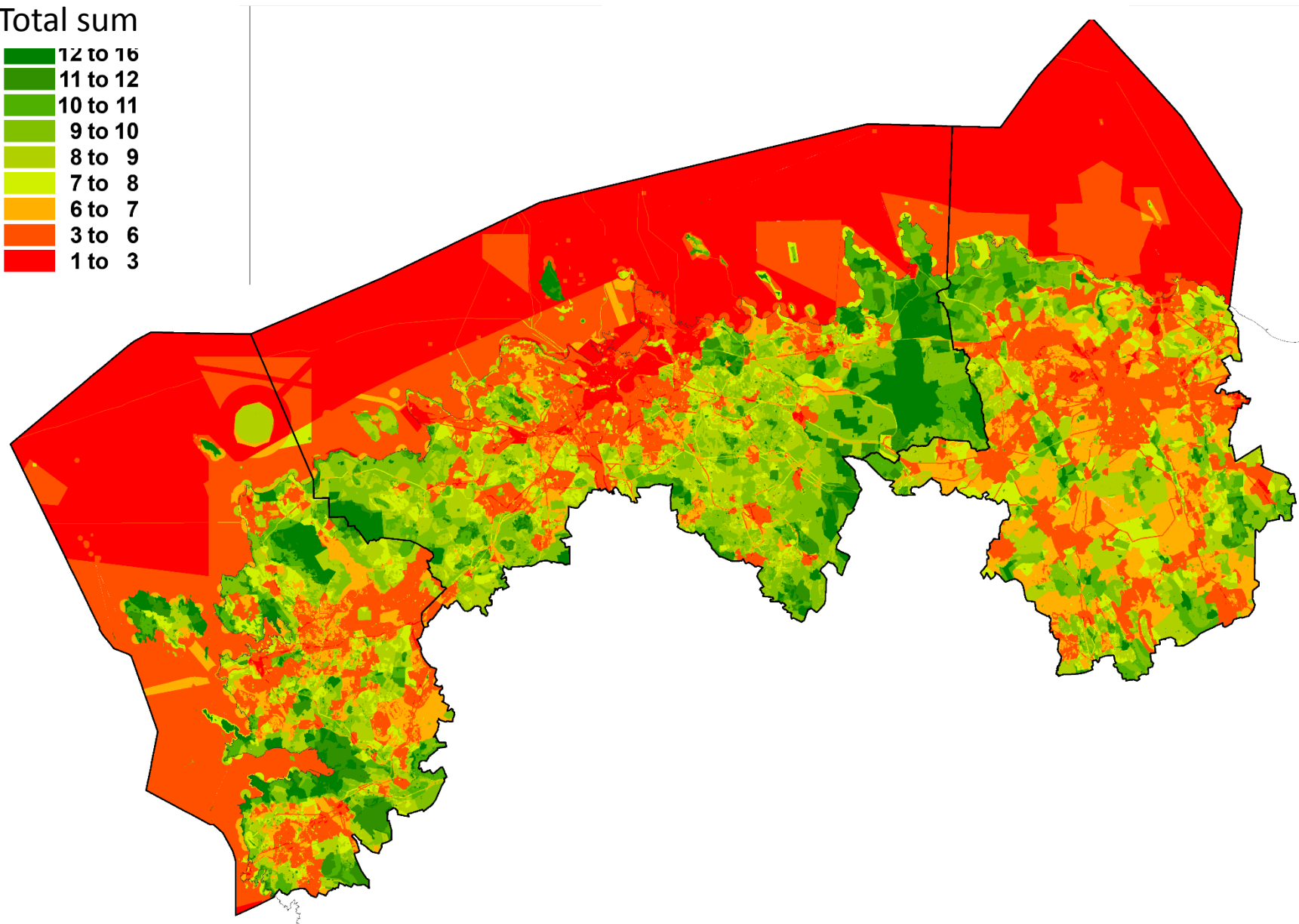
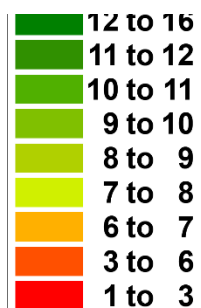
Compiled suitability map

Green= more suitable

- What we were looking for?

Areas with high nature value, demographic problems, cultural values and lower economical pressure (more traditional)

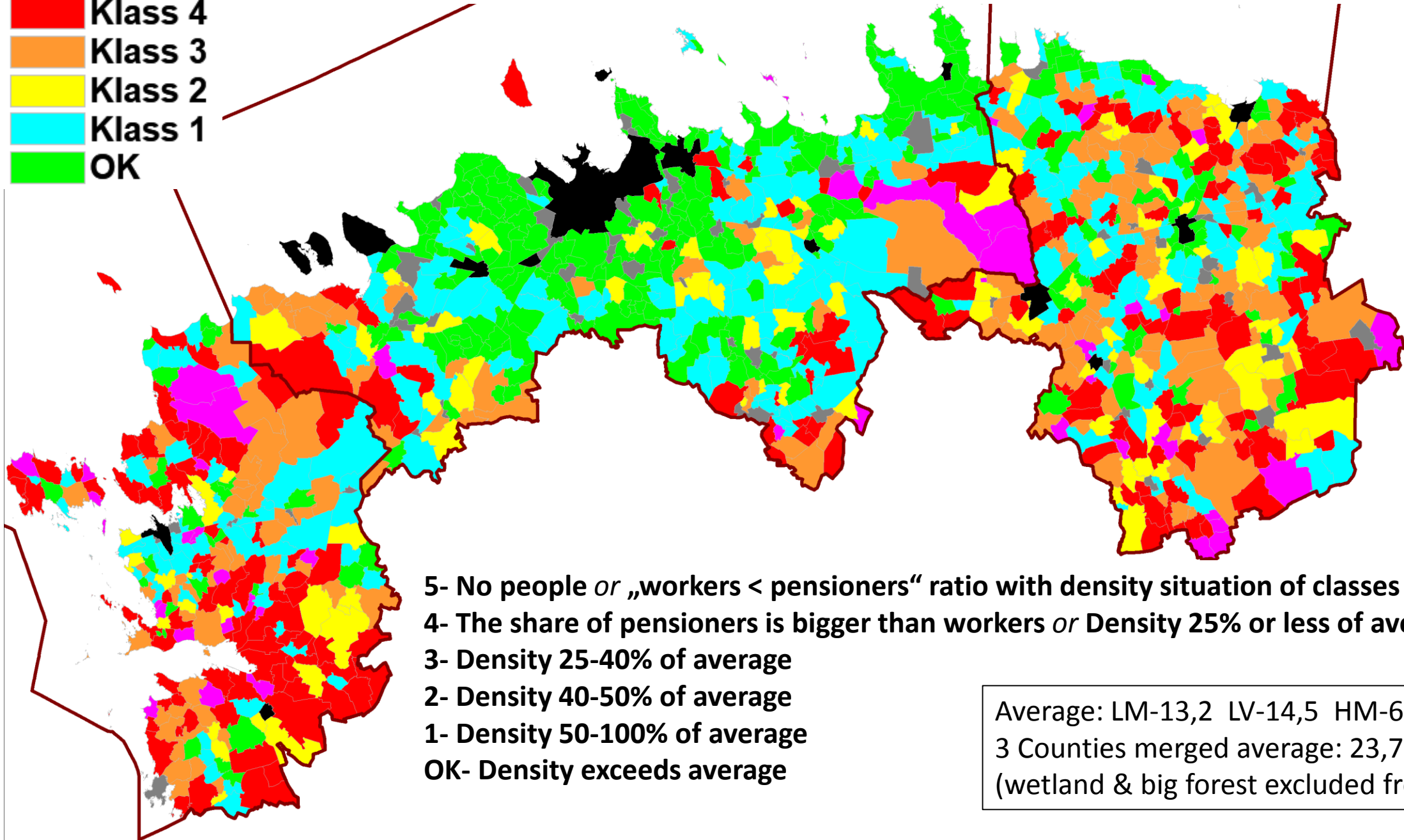
Total sum



- Estonian partners of the project are supposed to select two testareas for ICZM zonation
- As Harjumaa is not typical Estonian county testareas should be located in Lääne-Virumaa and Läänemaa (2/3 (60625 of 88215) of the Project area village's population is located in Harjumaa)



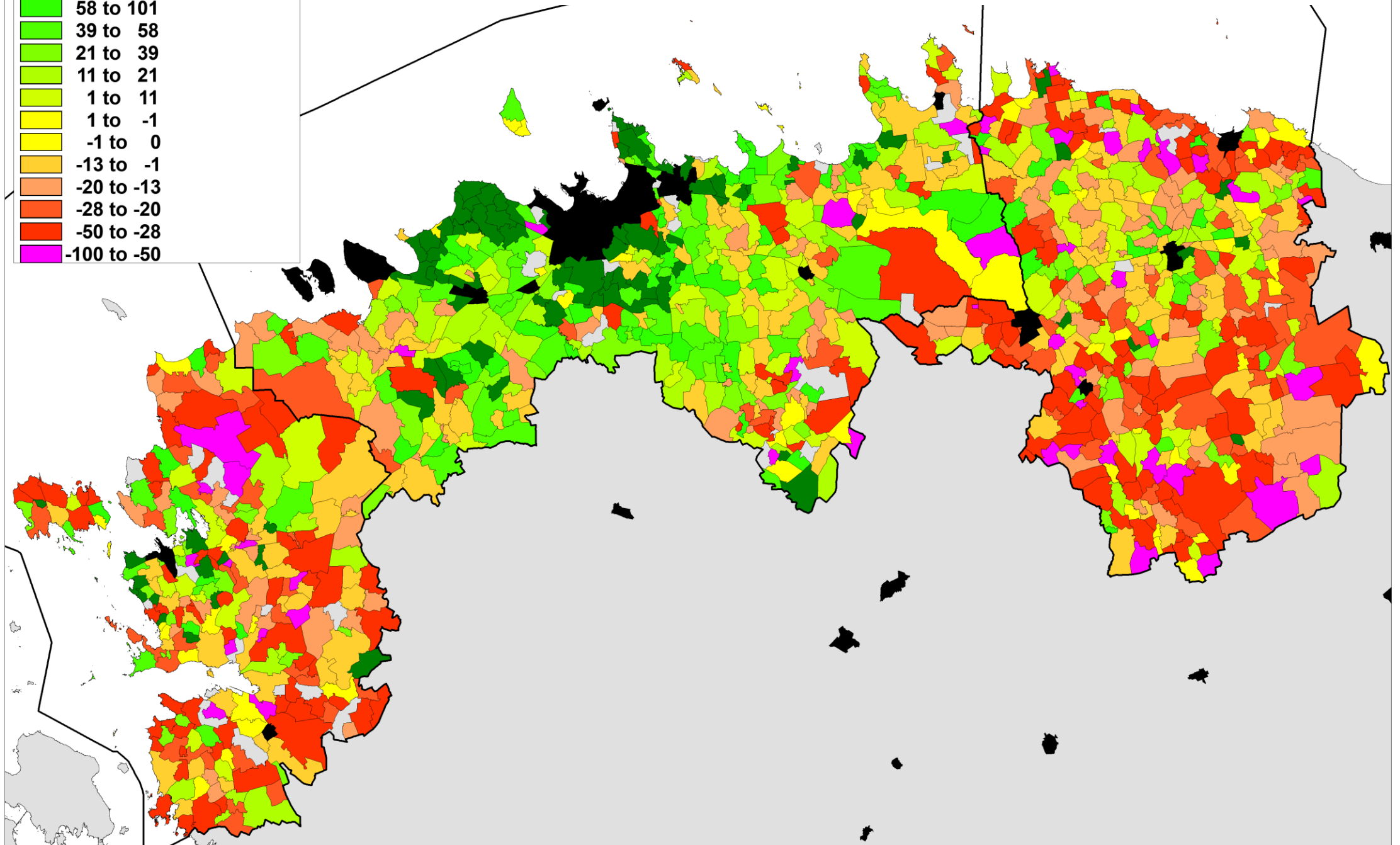
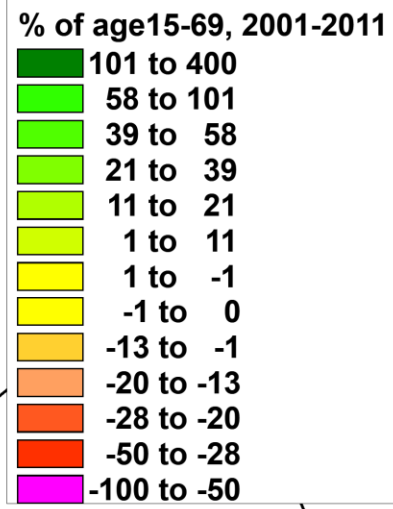
Marginalization (Rural settlements, 3 Counties merged marks)



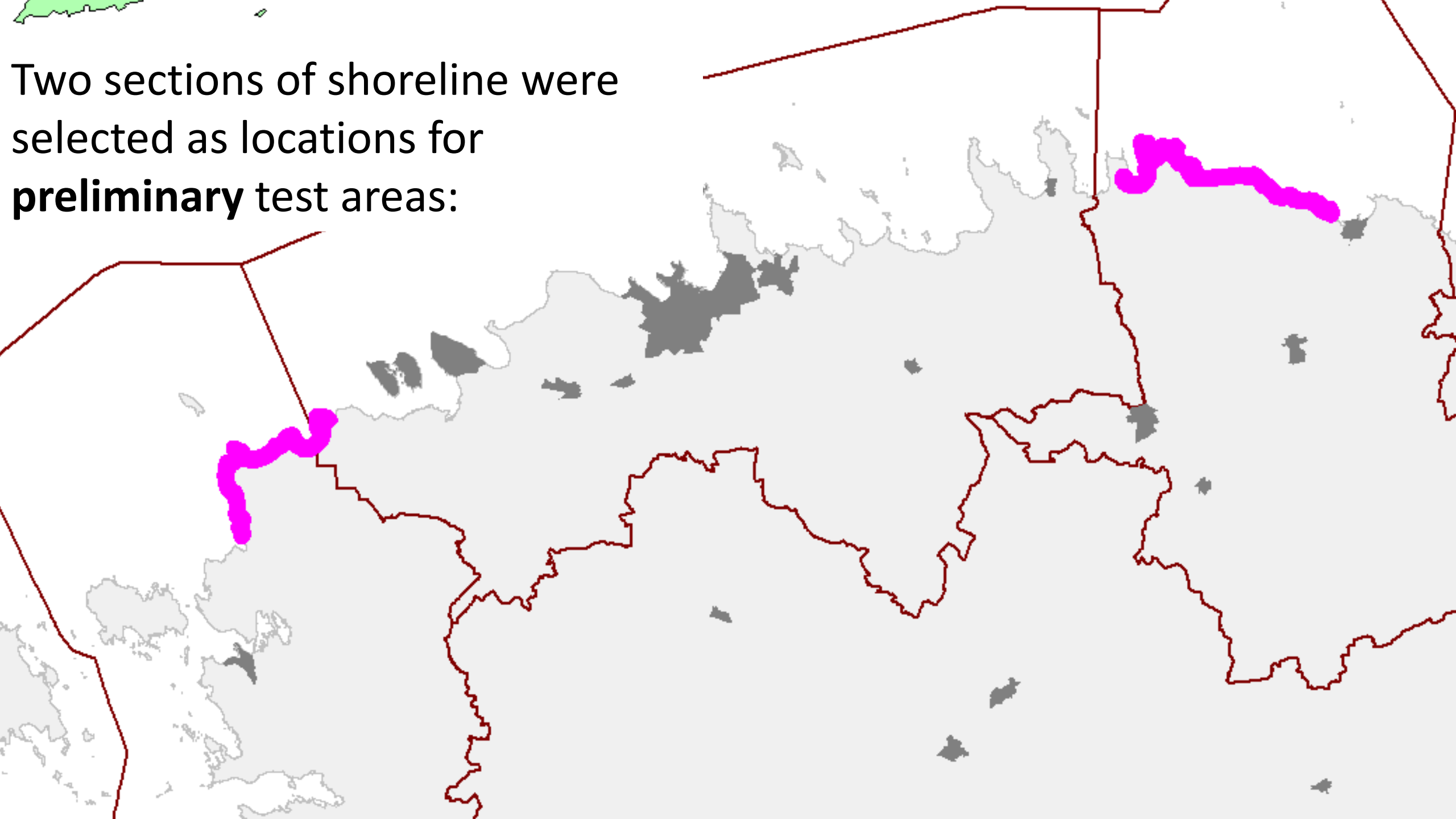
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- 2- Density 40-50% of average
- 1- Density 50-100% of average
- OK- Density exceeds average

Average: LM-13,2 LV-14,5 HM-68,3
3 Counties merged average: 23,7
(wetland & big forest excluded from area)

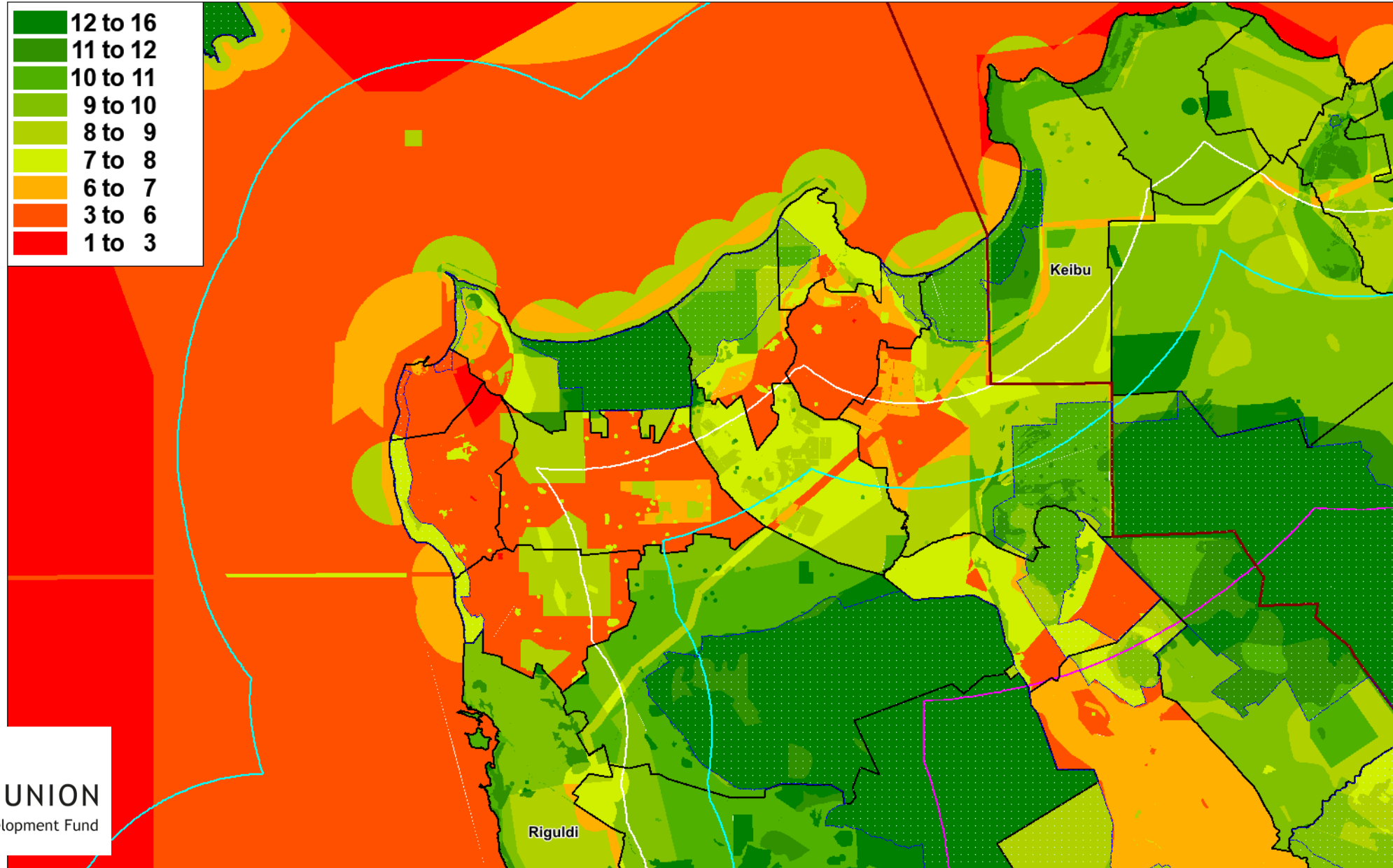
Age group 15-69years dynamics 2001 to 2011



Two sections of shoreline were selected as locations for **preliminary** test areas:



Läänemaa:
from Riguldi
to Keibu



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Läänemaa test area:

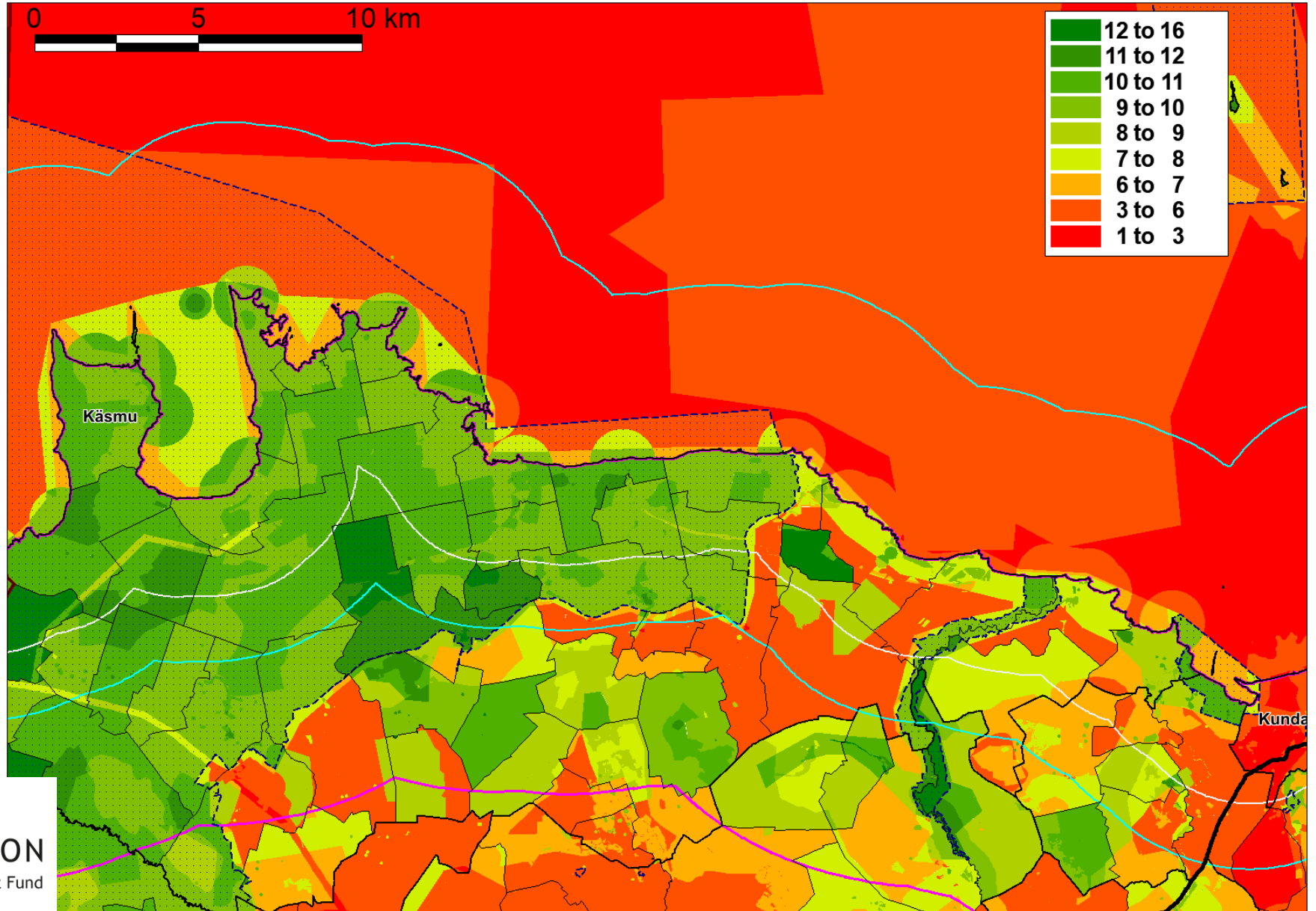
- Protected area *versus* tourism as neighbour
- Crossborder situation and administrative difference (Keibu is from Harjumaa)

Possible problems?

- Intensive residential-house building
- Crowded beach areas, bad accessibility (Nõva)
- Neugrundi shallow: Military *versus* Nature protection



Lääne-Virumaa: from Käsmu to Kunda



Lääne-Virumaa test area:

- Nature protection area with traditional settlements *versus* no restrictions area next to it

Possible problems?

- Extension of harbours (Võsu, Käsmu, Kunda, Karepa)
- Intensive residential-house building
- Crowded beach areas, bad accessibility
- Industrial pressure from Kunda



What next?

- Defining test areas concrete borders and focus
- ICZM zoning for 2 test areas

Near Future Timetable:

- June-September 2017
 - mapping possible problems and conflicts on test areas
 - gathering testarea specific information
 - fieldworks
 - communications about gathered information
- October-December 2017 – First drafts of ICZM plans

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Thank You!



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