



Using spatial information for geodesign workshops

Ron Janssen

Informatie

WEET IK
VEEL.

GEWOON,
INFORMATIE.





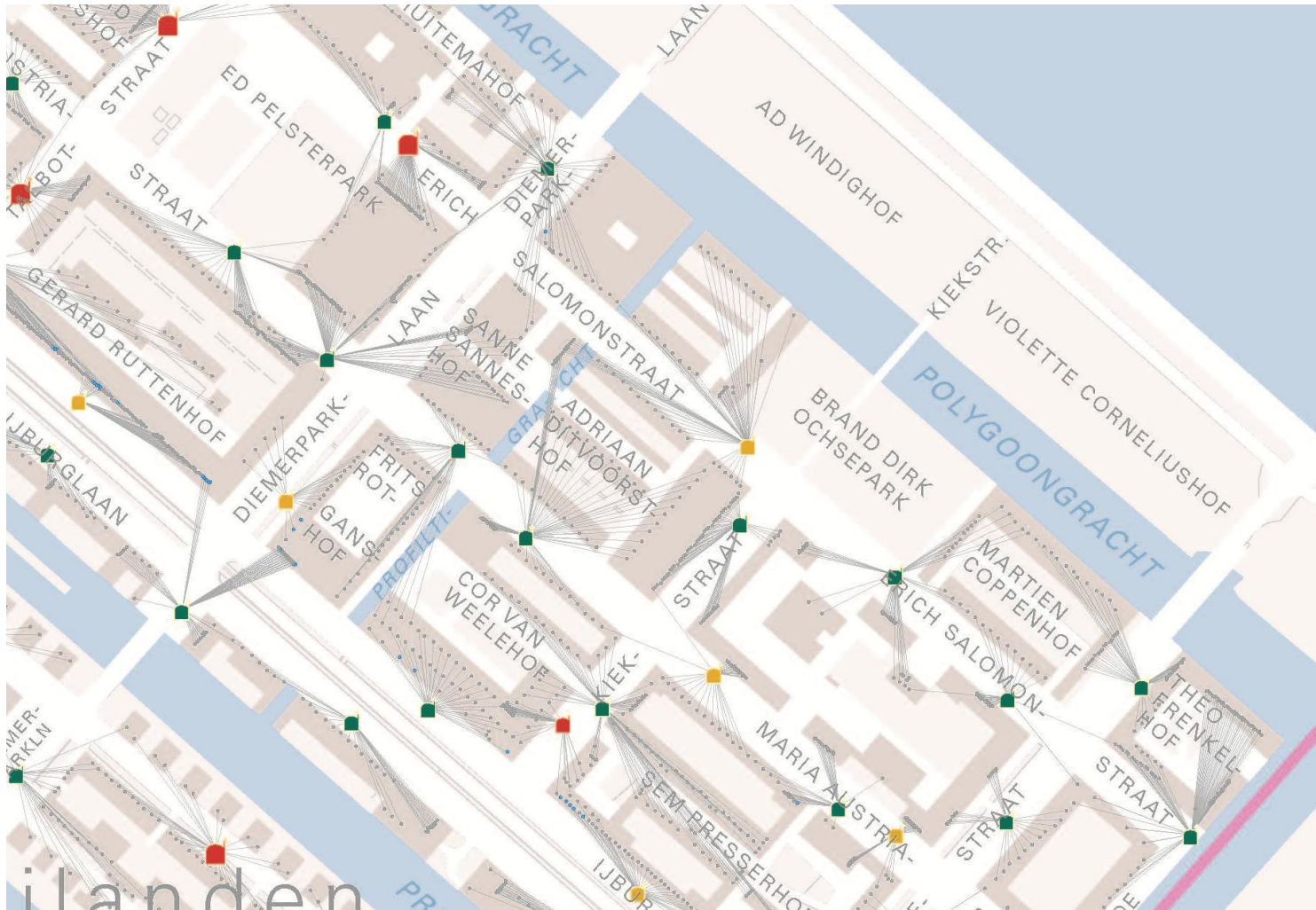
A geodesign tool to support allocation of waste containers in the public space.

Ron Janssen

wastecosmart.eu



Map of IJburg showing waste containers and walking distances



The assignment

- ▶ You have five waste containers available;
- ▶ Move the containers until walking distances are minimized;



Show movie



A real geodesign tool

- ▶ It is based on spatial information;
- ▶ It is interactive;
- ▶ It produces a spatial design



Geodesign workshops



The problem

Select locations for waste containers to:

- Maximise the use of the containers
- Minimize cost of waste collection and
- Minimize environmental costs.

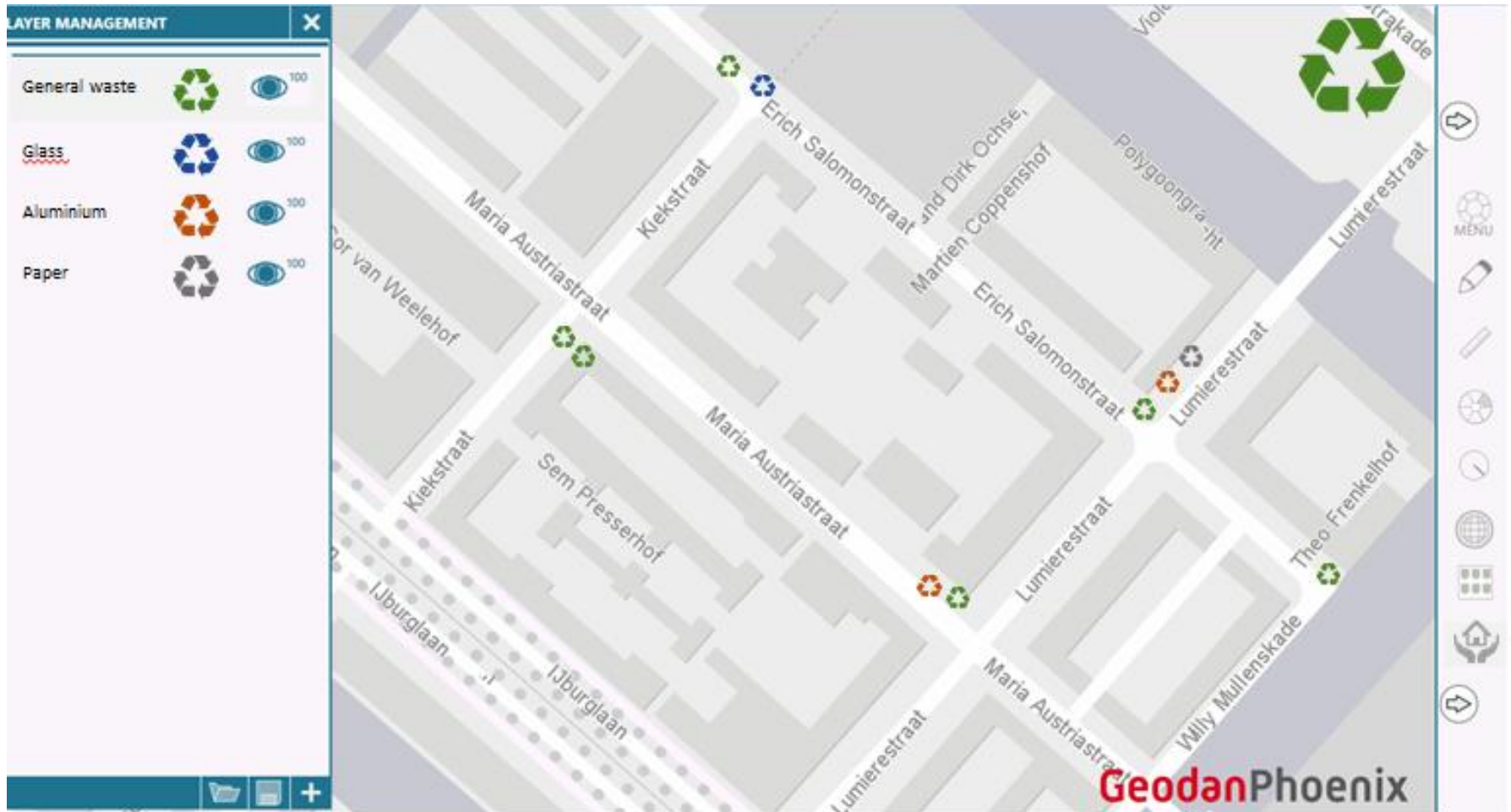


Three tools

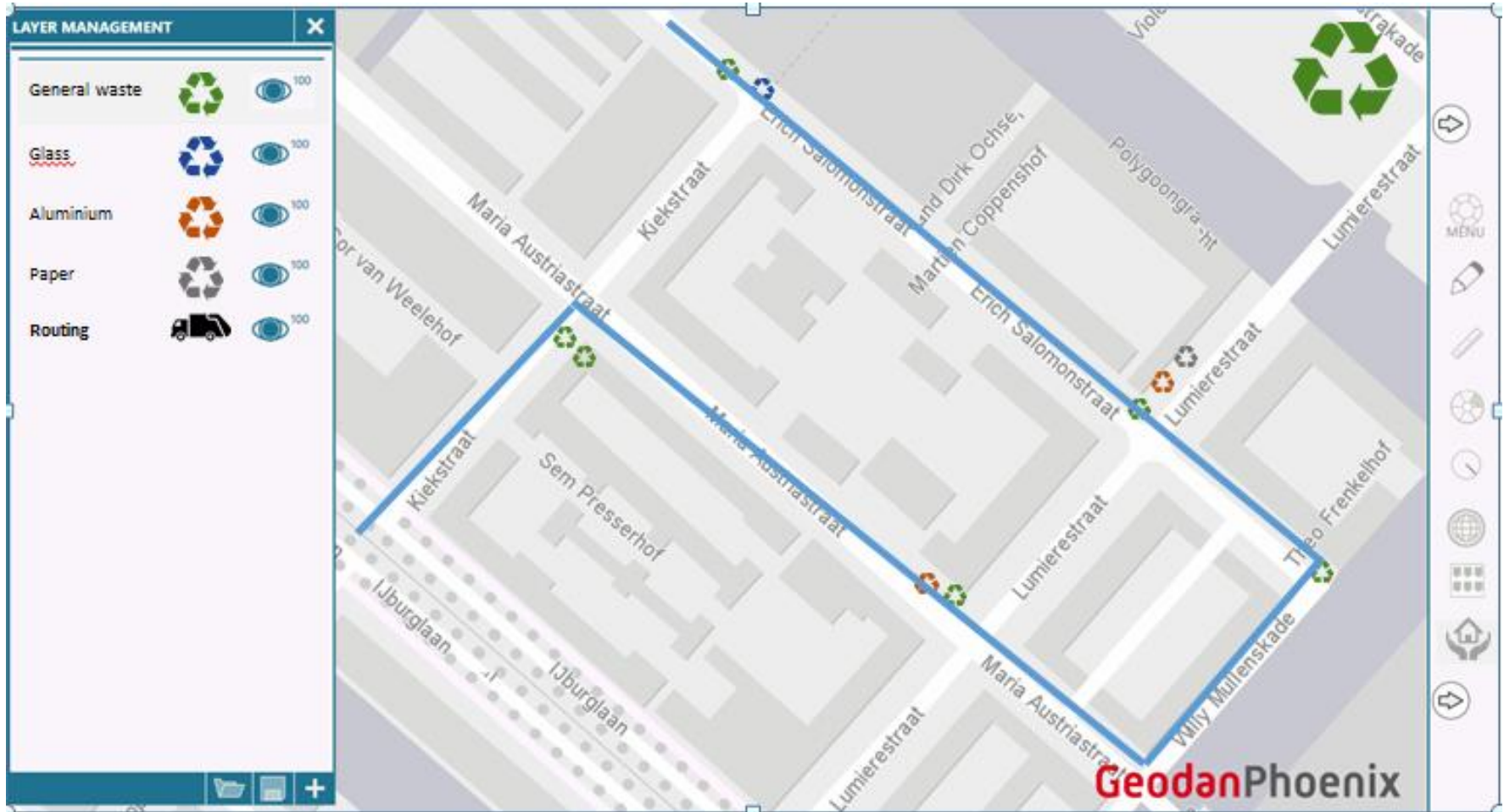
1. A visualisation tool: user moves one or more containers through the district and receives feedback on the map on walking distances.
2. A spatial planning tool: user allocates containers in the district and the tool determines collection routes for the garbage trucks, walking distances and environmental impacts.
3. A design tool: user zooms in on a location and uses Minecraft to create a local design



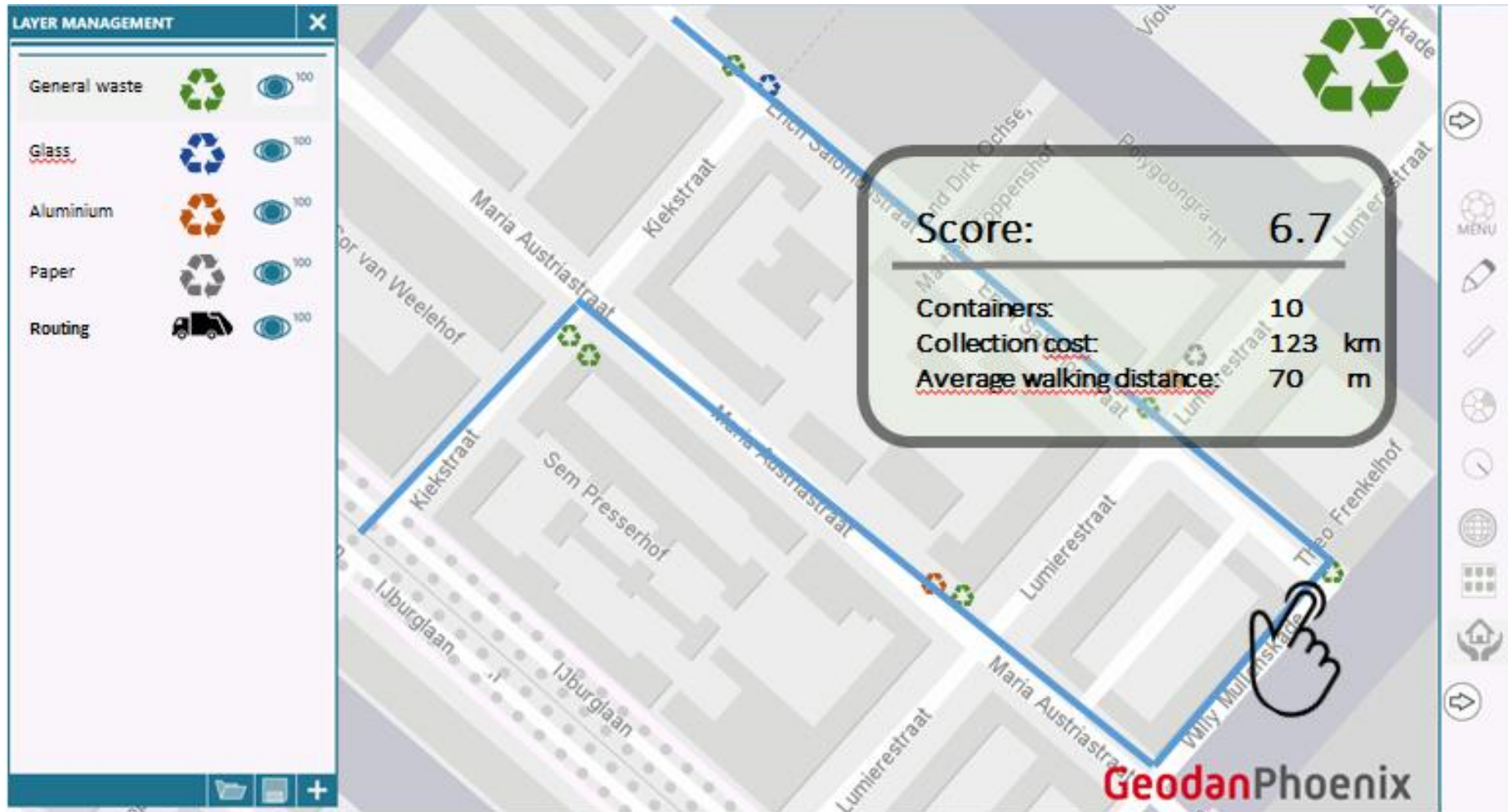
Select locations for the containers



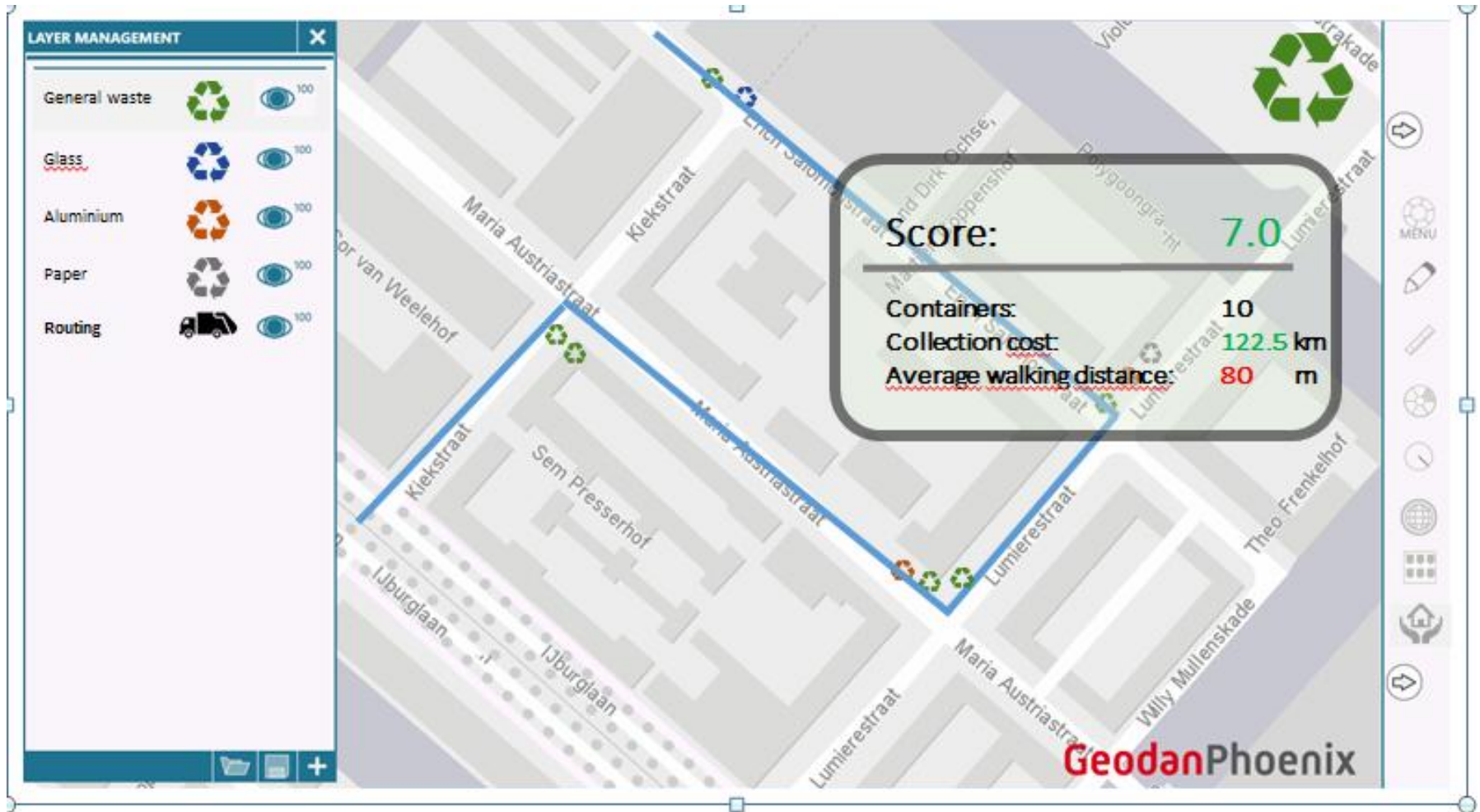
Generate collection routes



Calculate walking distances and collection costs



Relocate containers



Design at street level

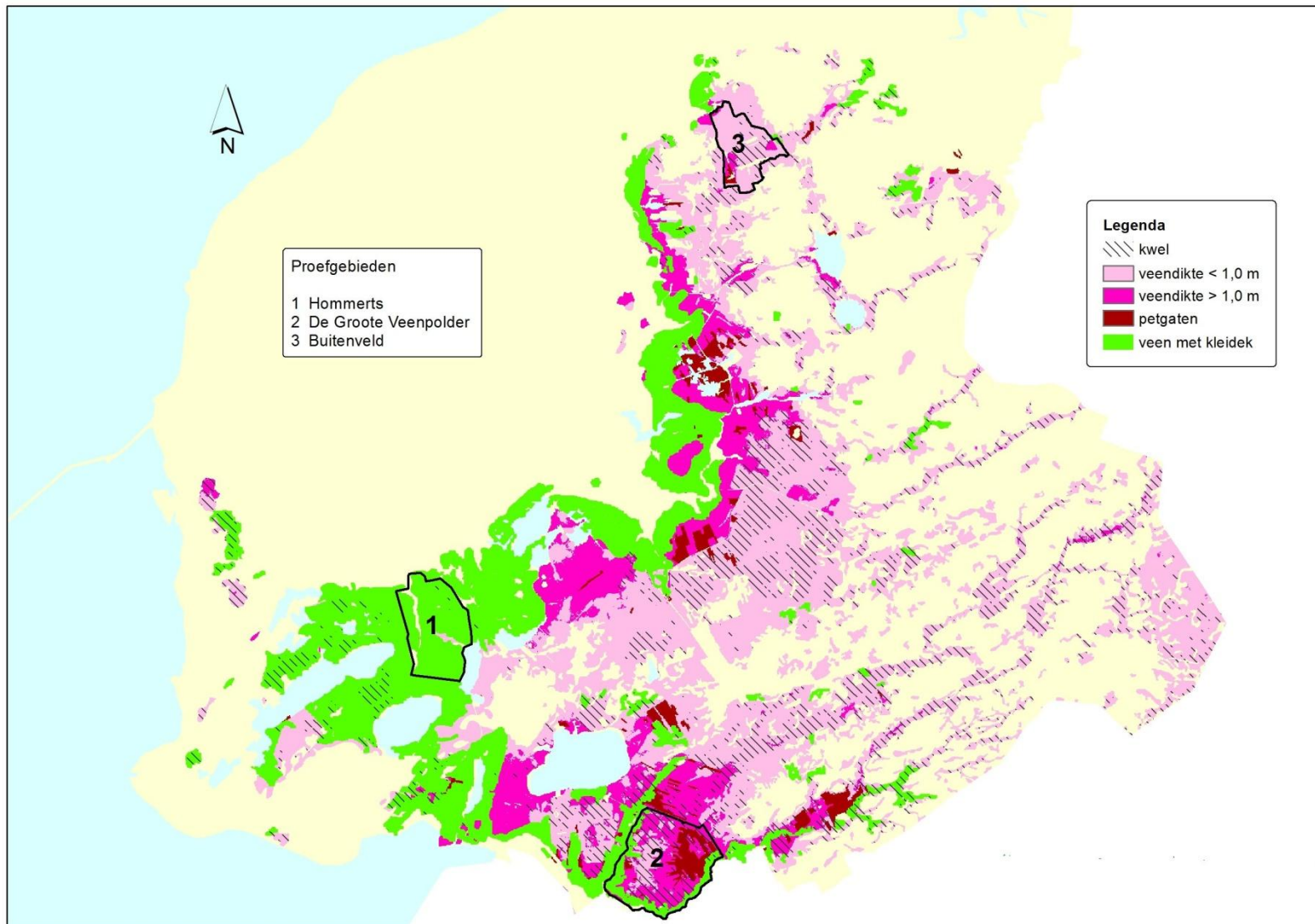




Using Geodesign to Develop a Spatial Adaption Strategy for South East Friesland

Ron Janssen Tessa Eikelboom

A Spatial Adaption Strategy for South East Friesland



Peat is compacting and the land is sinking



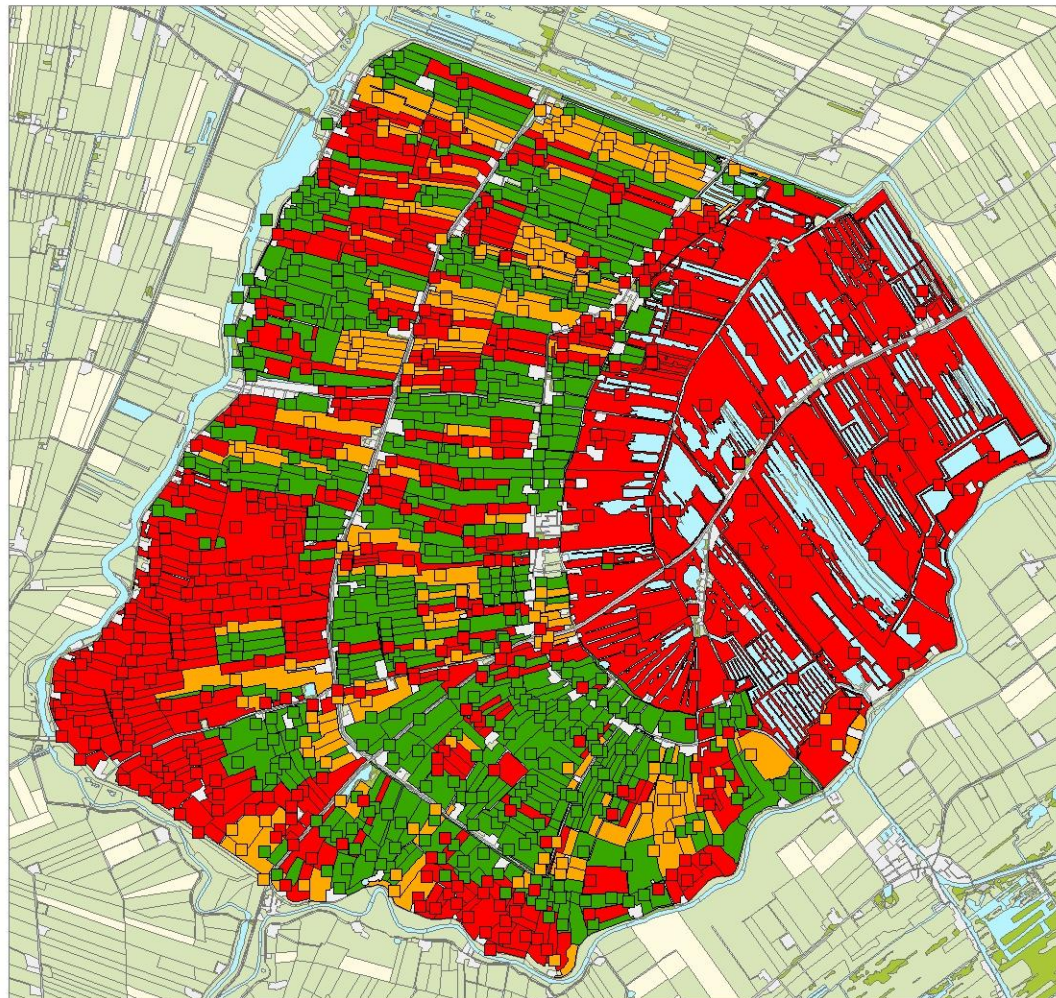
More and more water needs to be pumped out



Objectives of the workshops

- Exchange of information
- Validating information
- Design three spatial adaptation scenarios

Reduce the information to three indicators



Legenda

doelrealisaties

Dlandbouw

- 0 - 0.70
- 0.71 - 0.80
- 0.81 - 1

doelrealisaties

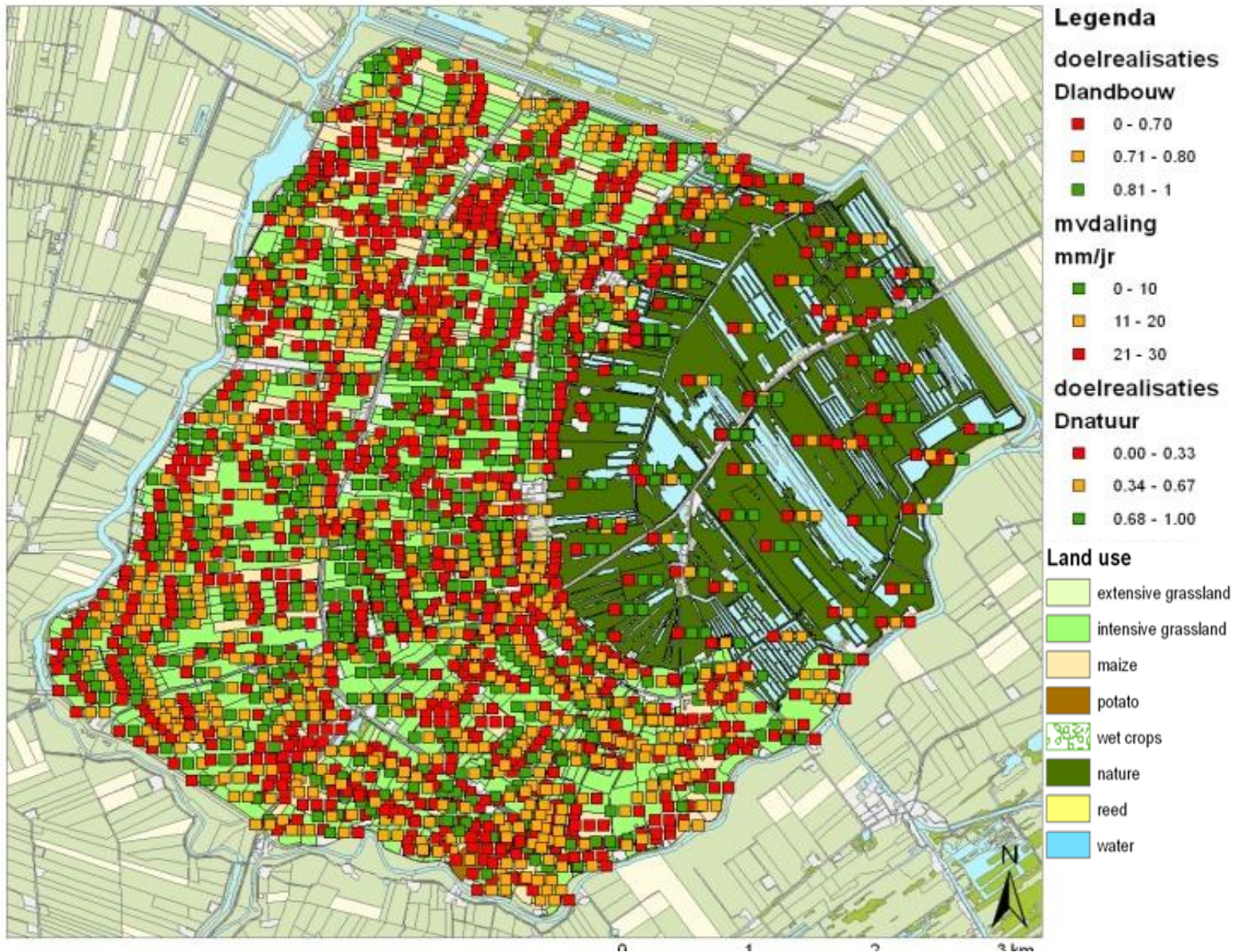
Dlandbouw

- 0 - 0.70
- 0.71 - 0.80
- 0.81 - 1.00

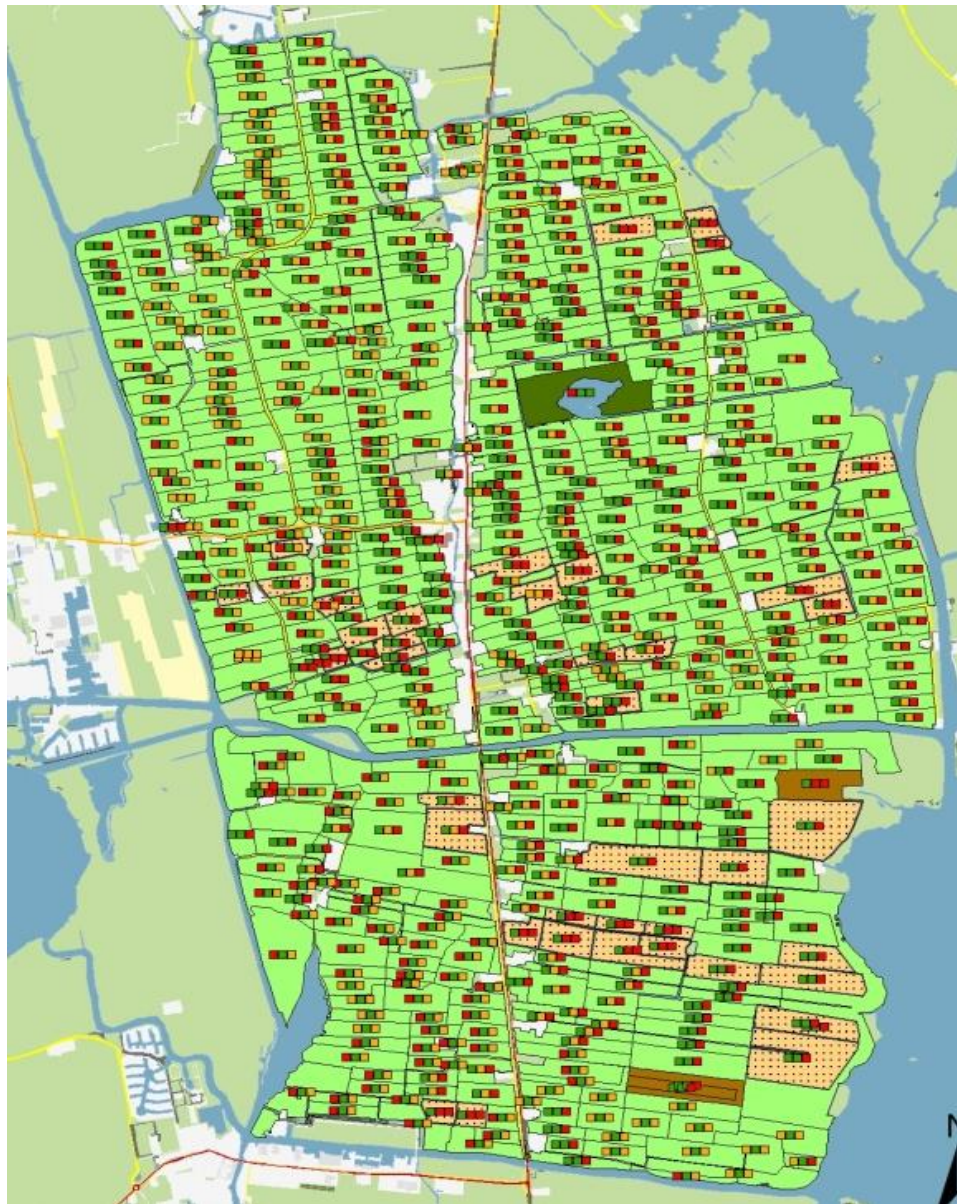
0 1 2 3 km



Project these indicators on top of other maps



Change land use and allocate measures and see the result



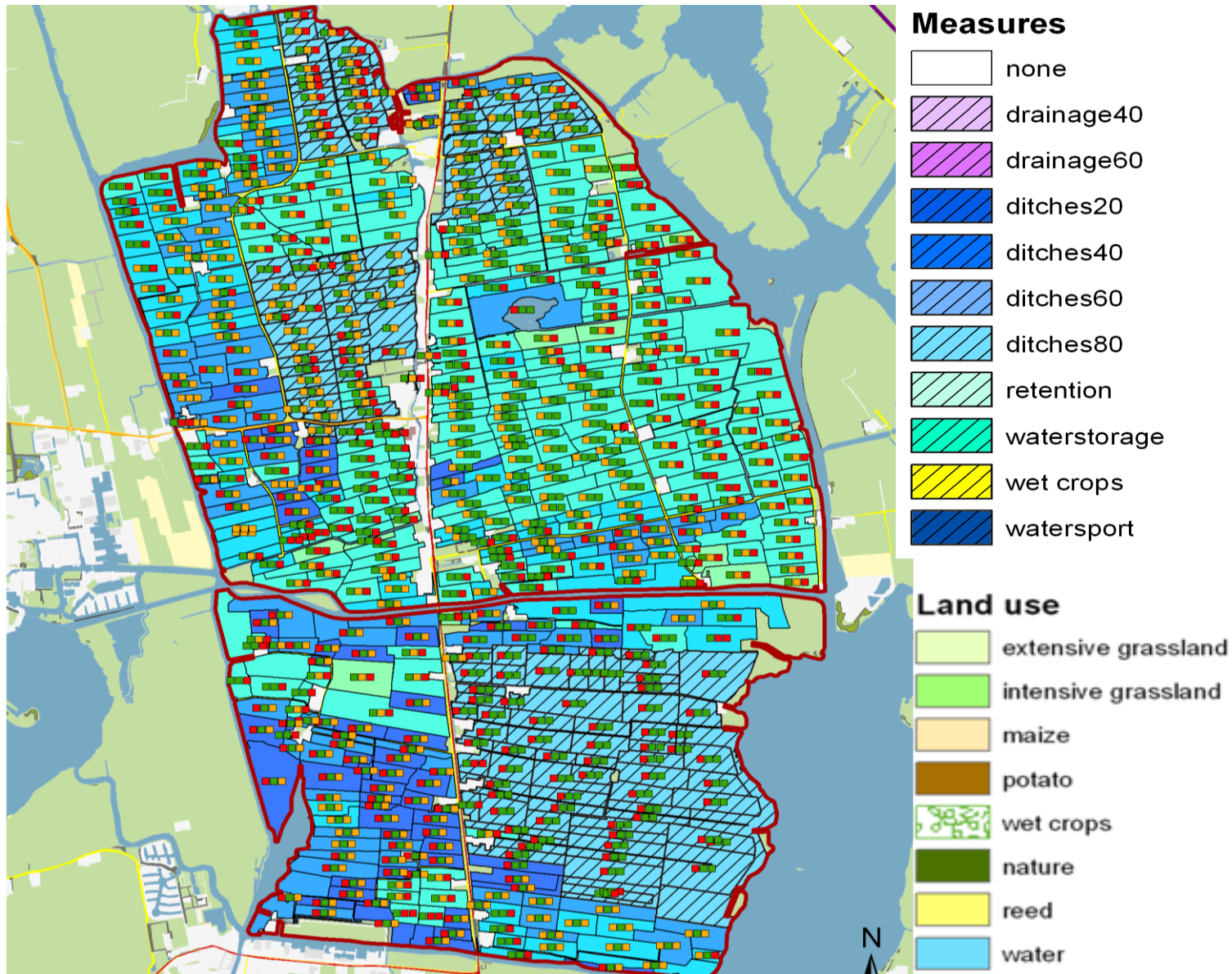
Measures



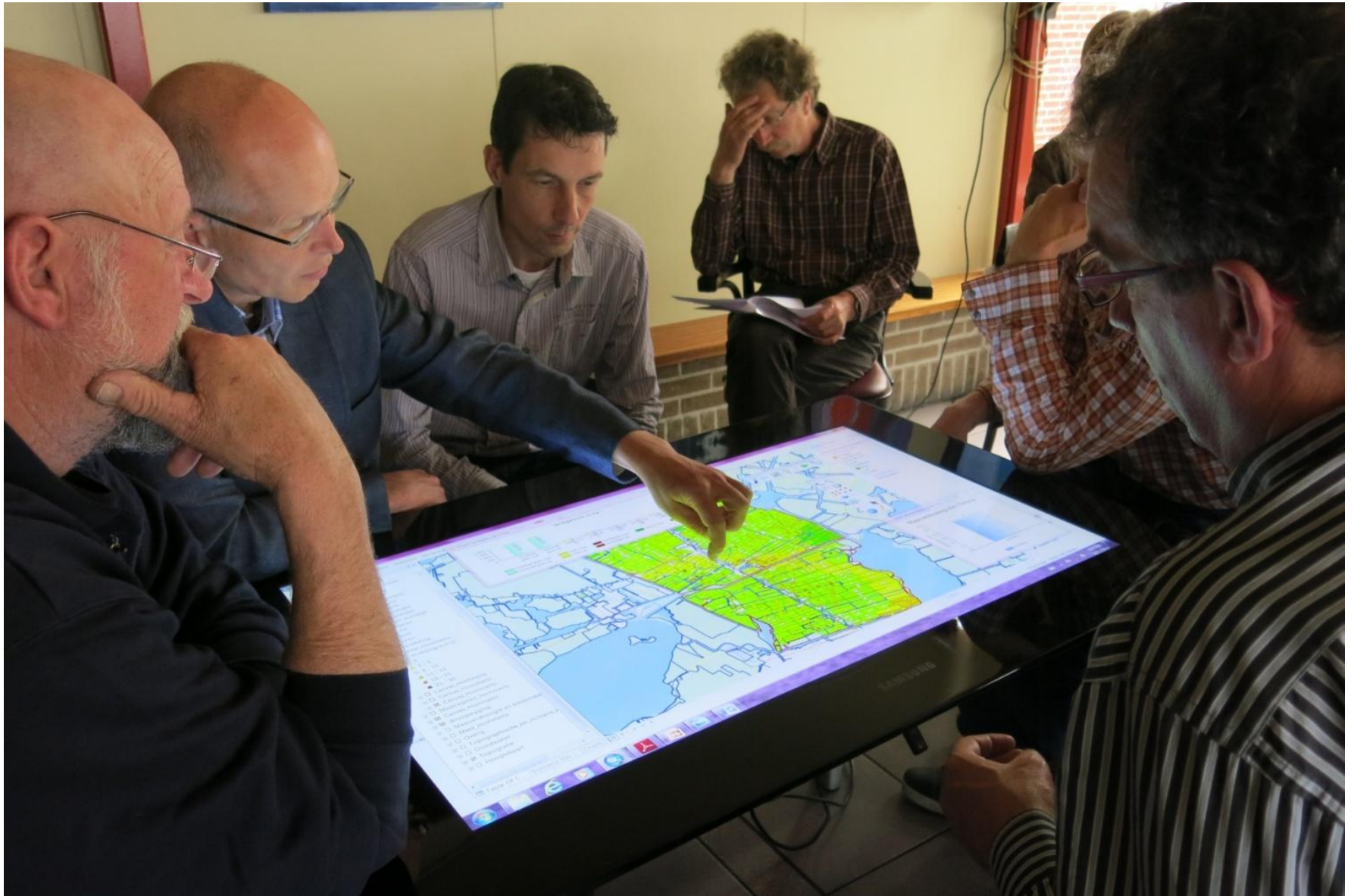
Land use



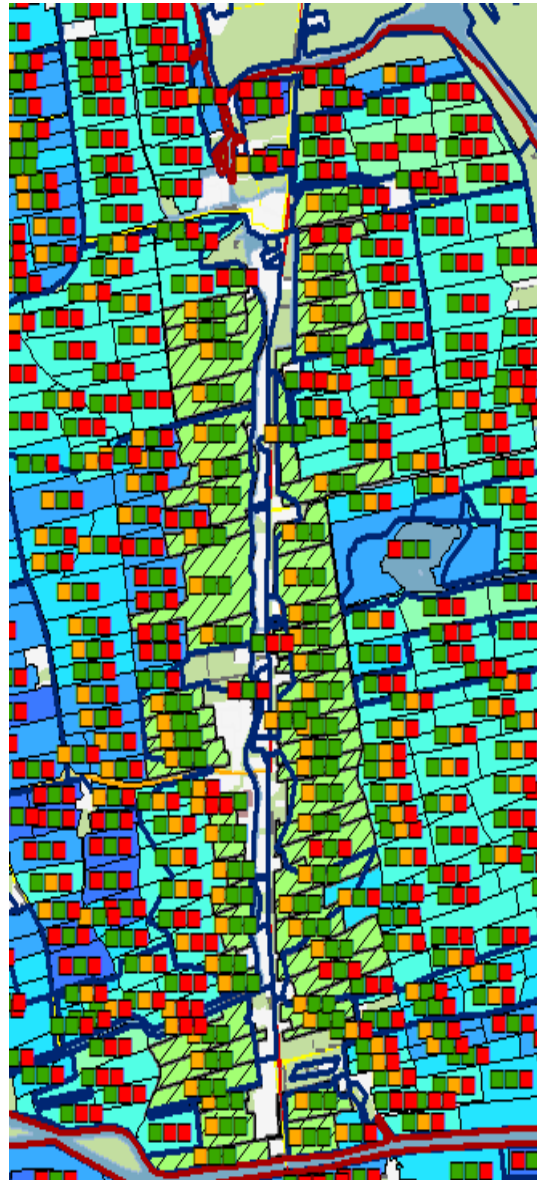
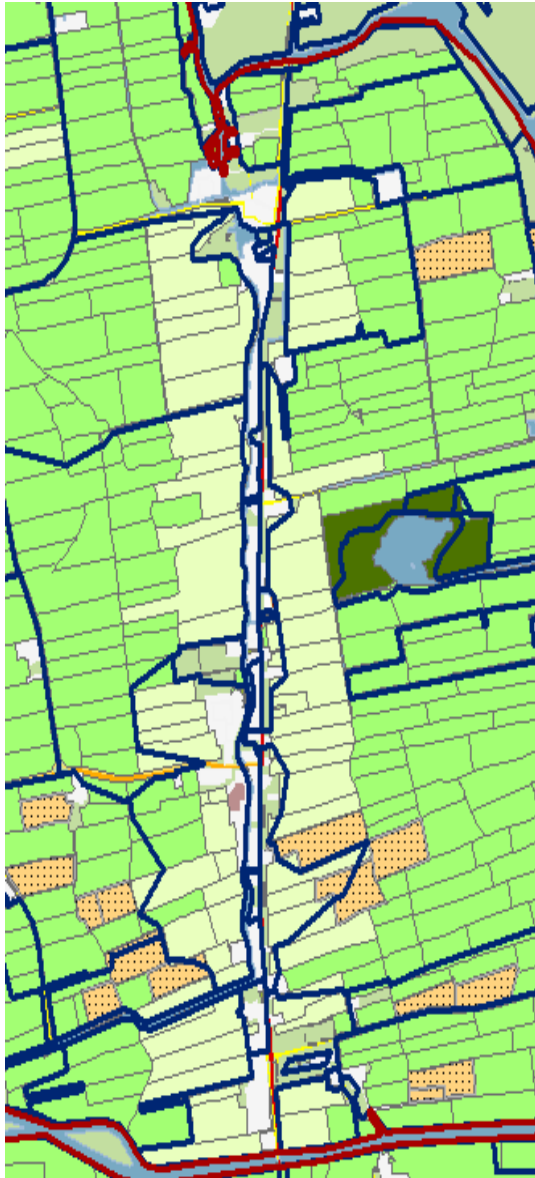
Change land use and allocate measures and see the result



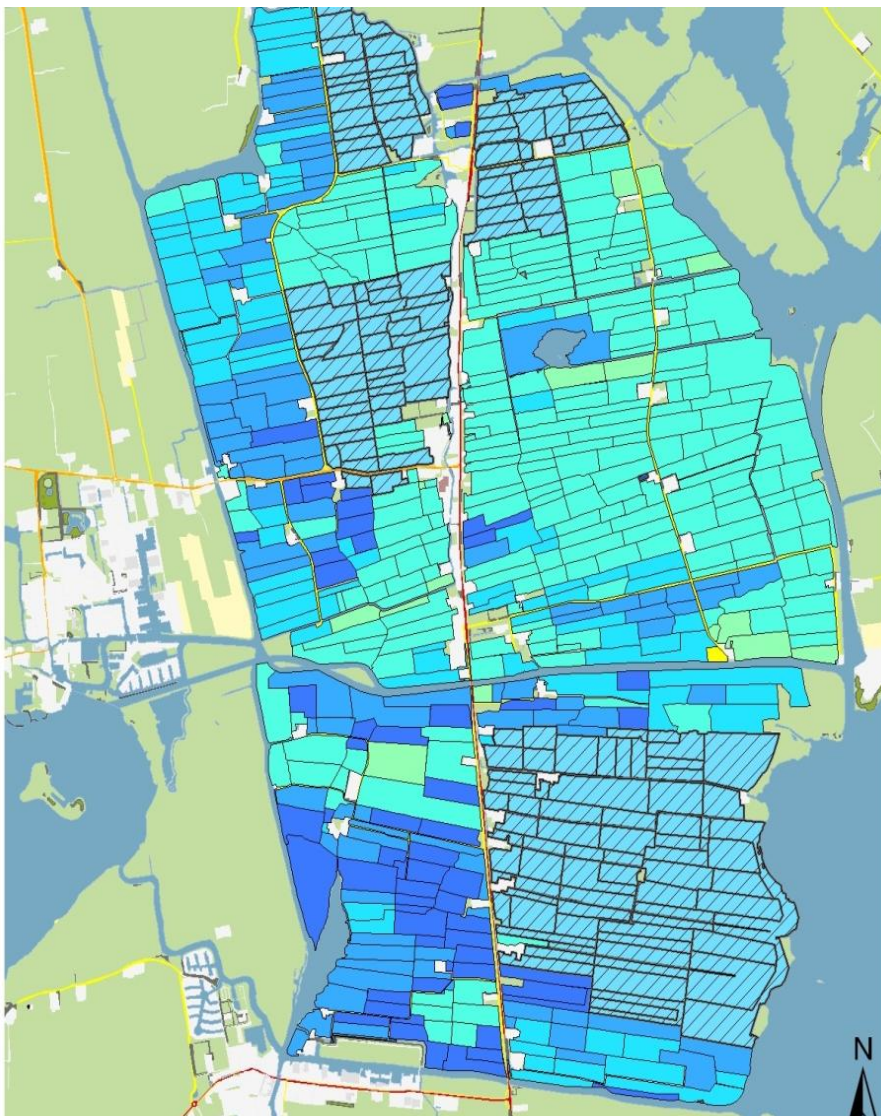
Worskhop Hommerts



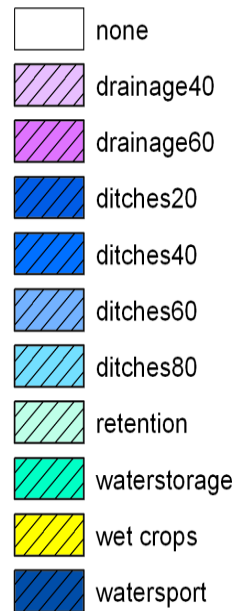
Parallel tracks



Business as usual



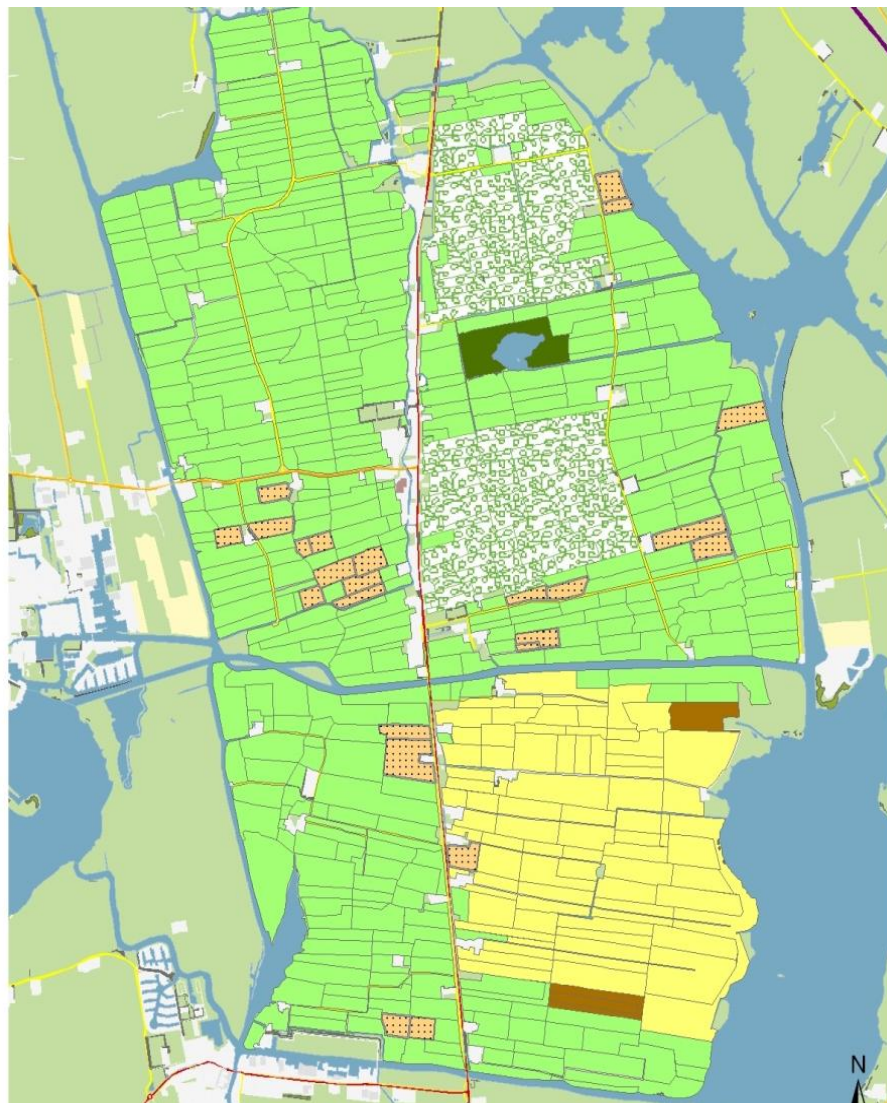
Measures



Land use



New horizons



Measures

- none
- drainage40
- drainage60
- ditches20
- ditches40
- ditches60
- ditches80
- retention
- waterstorage
- wet crops
- watersport

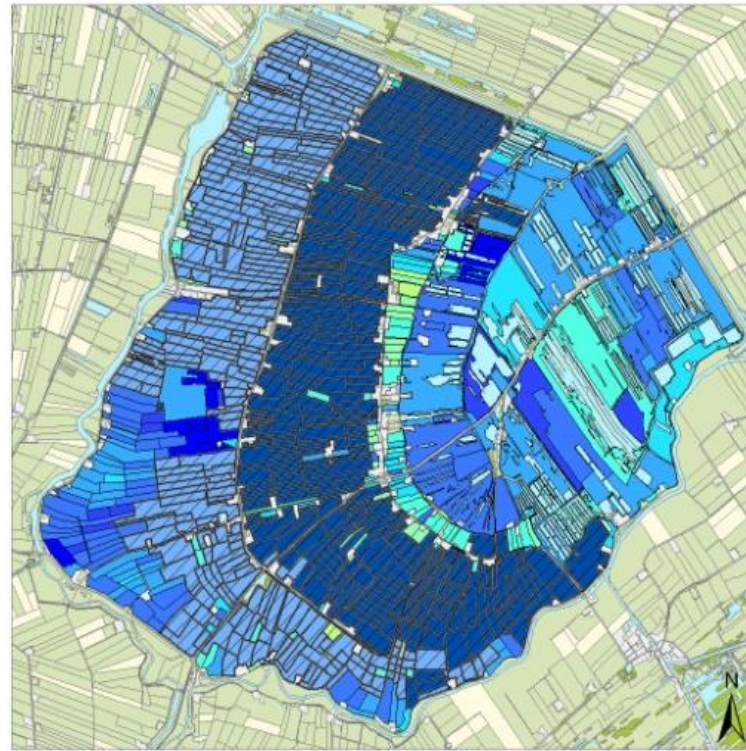
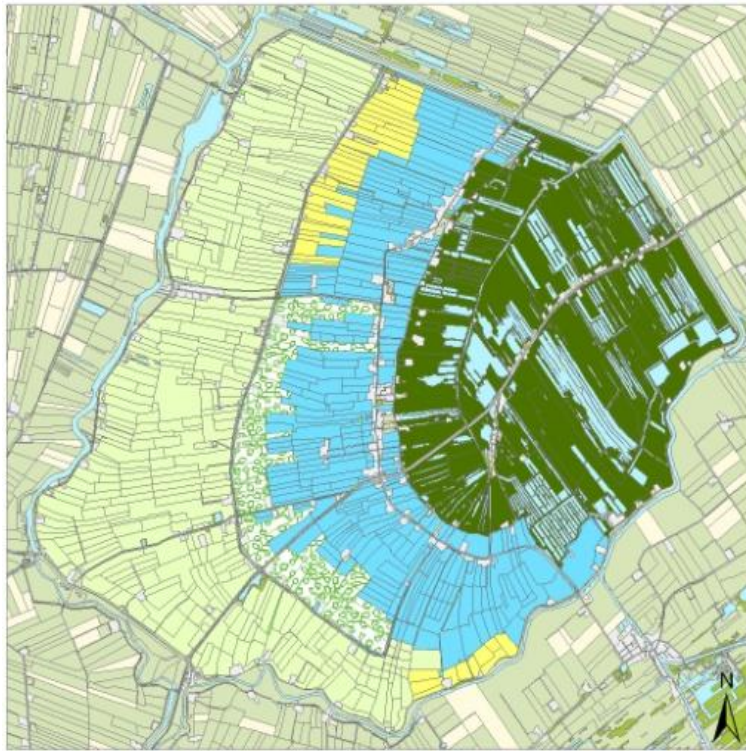
Land use

- extensive grassland
- intensive grassland
- maize
- potato
- wet crops
- nature
- reed
- water

Workshop Groote Veenpolder



Generate wild ideas for new horizons



Measures



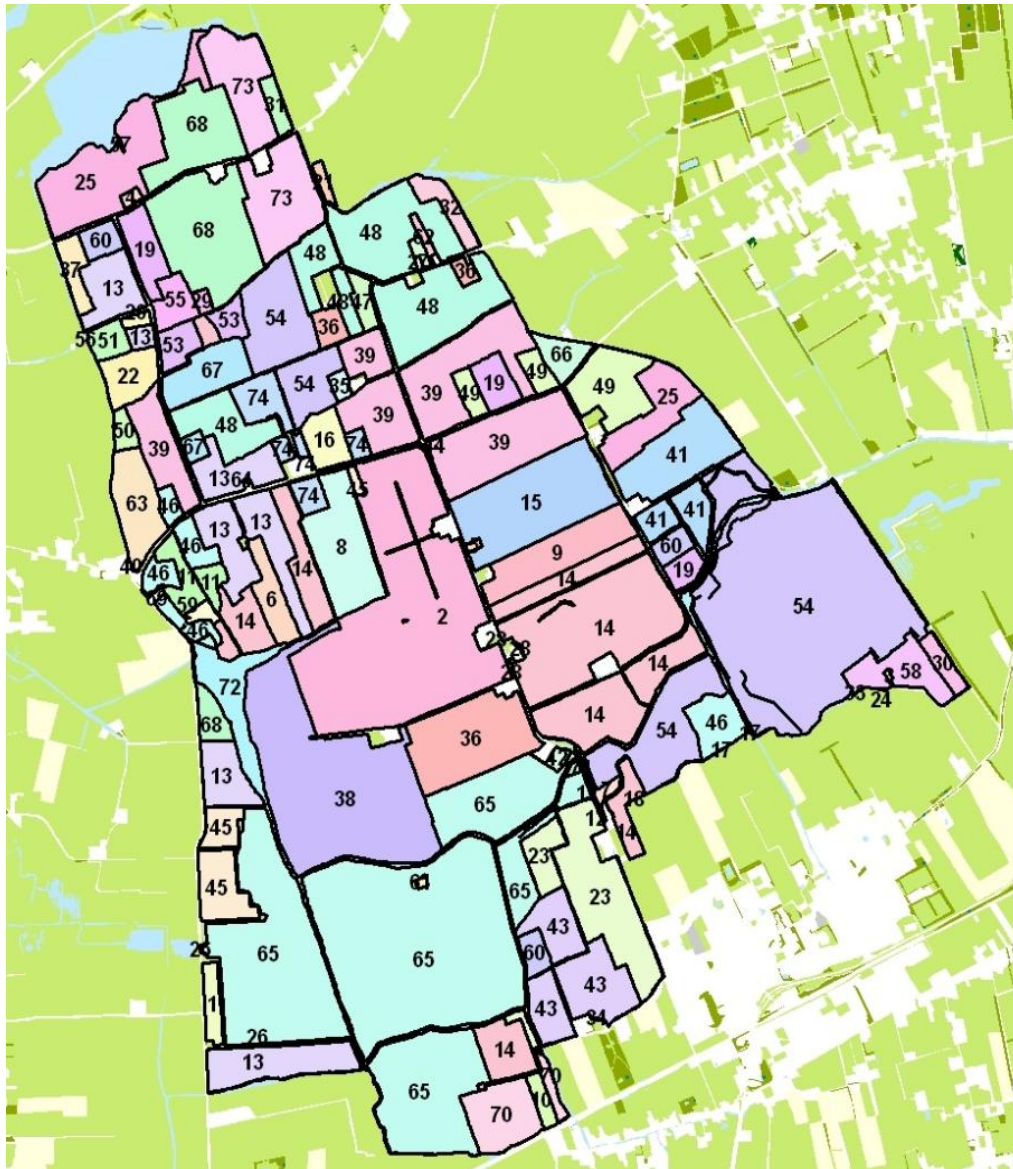
Land use



Workshop Buitenveld

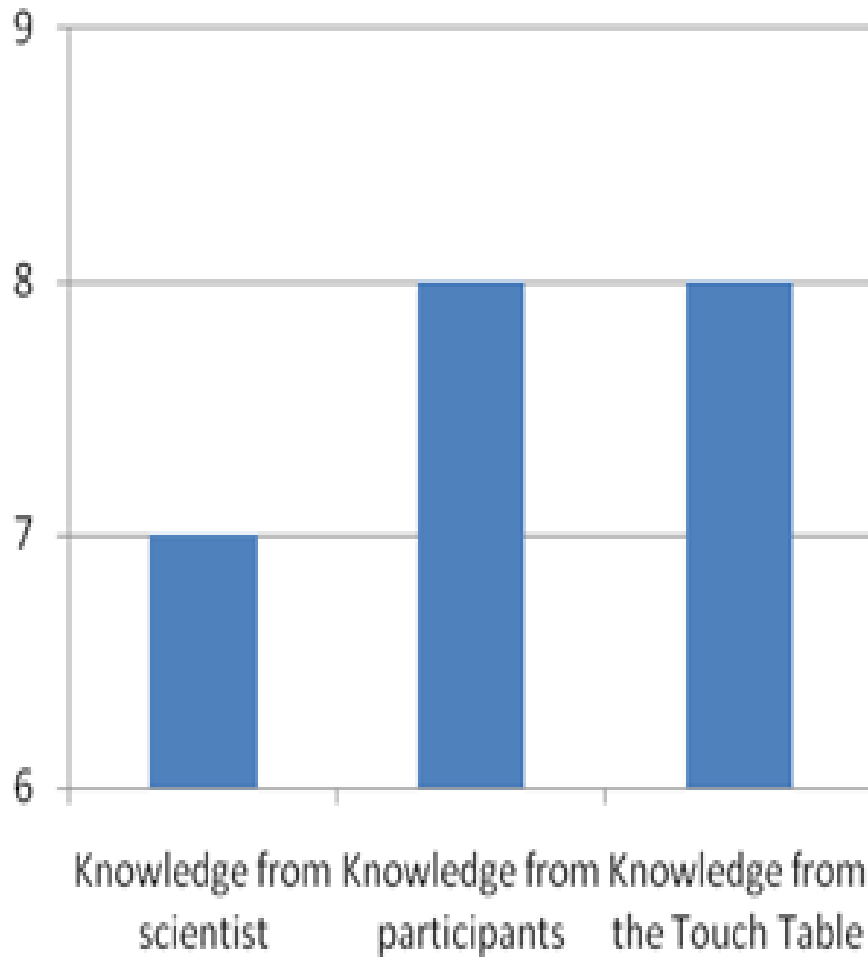


Use the property map to learn about historical developments



Exchange of information

Which type of information was most useful?



Feedback

Waterboard and Province:

- Makes explicit the choices to be made in the three scenarios;
- Useful as input for the next round in the planning process.

Researchers:

- Effective means to validate information and adjust information;
- Effective means to include local knowledge in the plans.



Interactive workshops for the Zambeze Valley

Eduardo Dias Ron Janssen

Reading maps





From the Cahora Bassa Dam



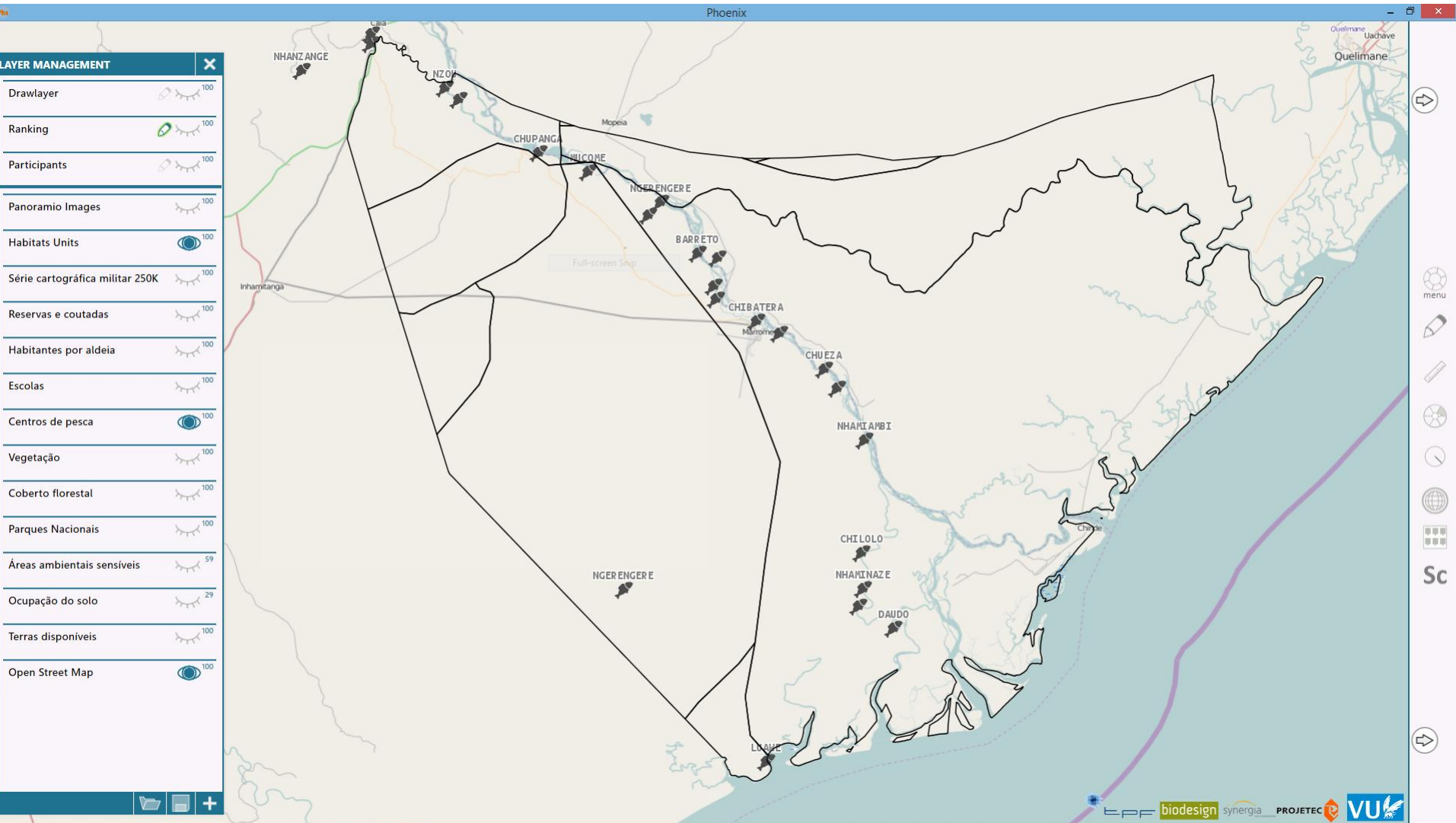
To the Indian Ocean



Objectives of the sectorial claims workshops

- To identify sectorial claims
- To identify matching and conflicting claims
- To find ways to match claims
- To prioritize claims if matching is not possible.

Fishing centres



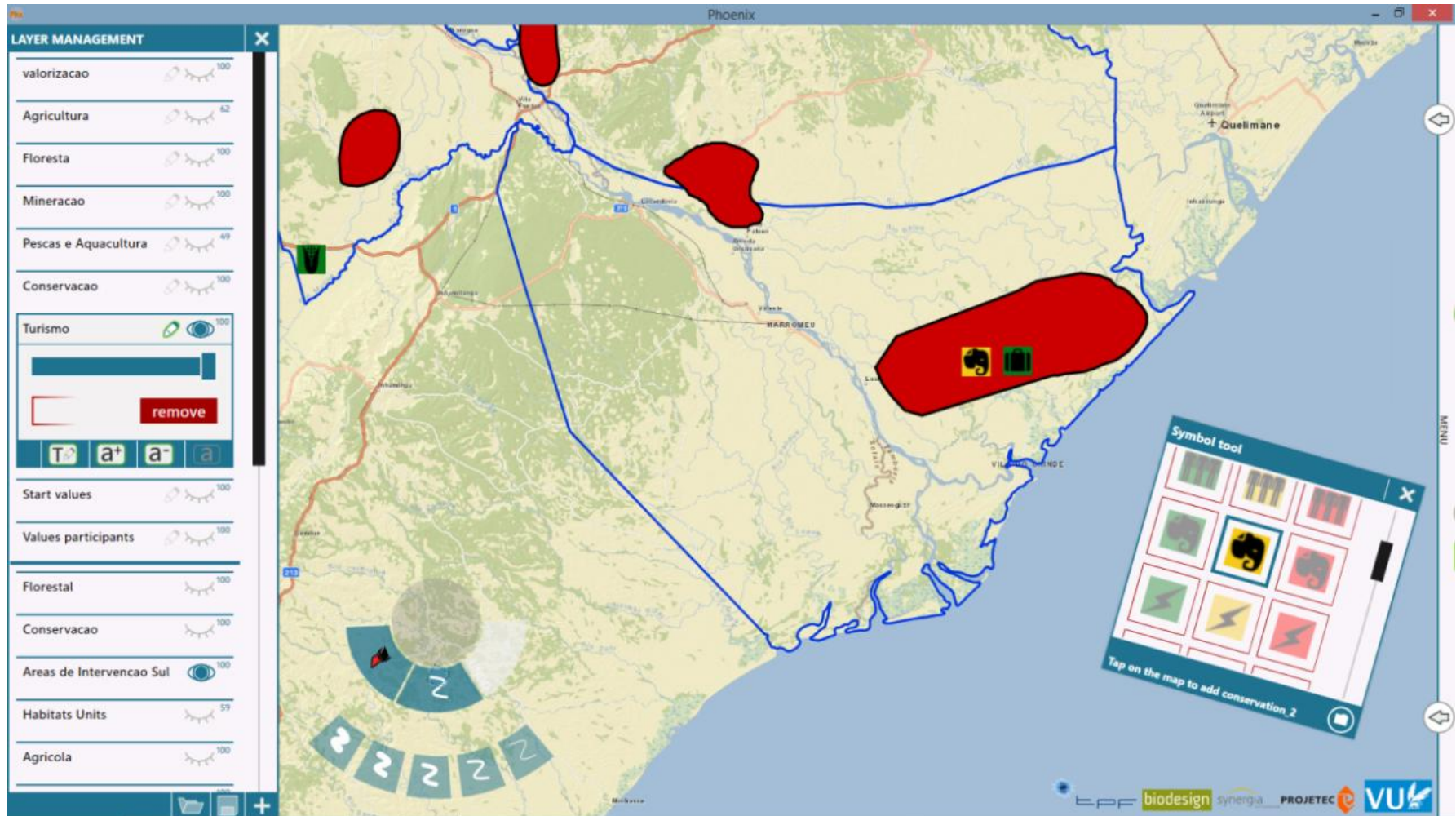
Workshop venue with internet



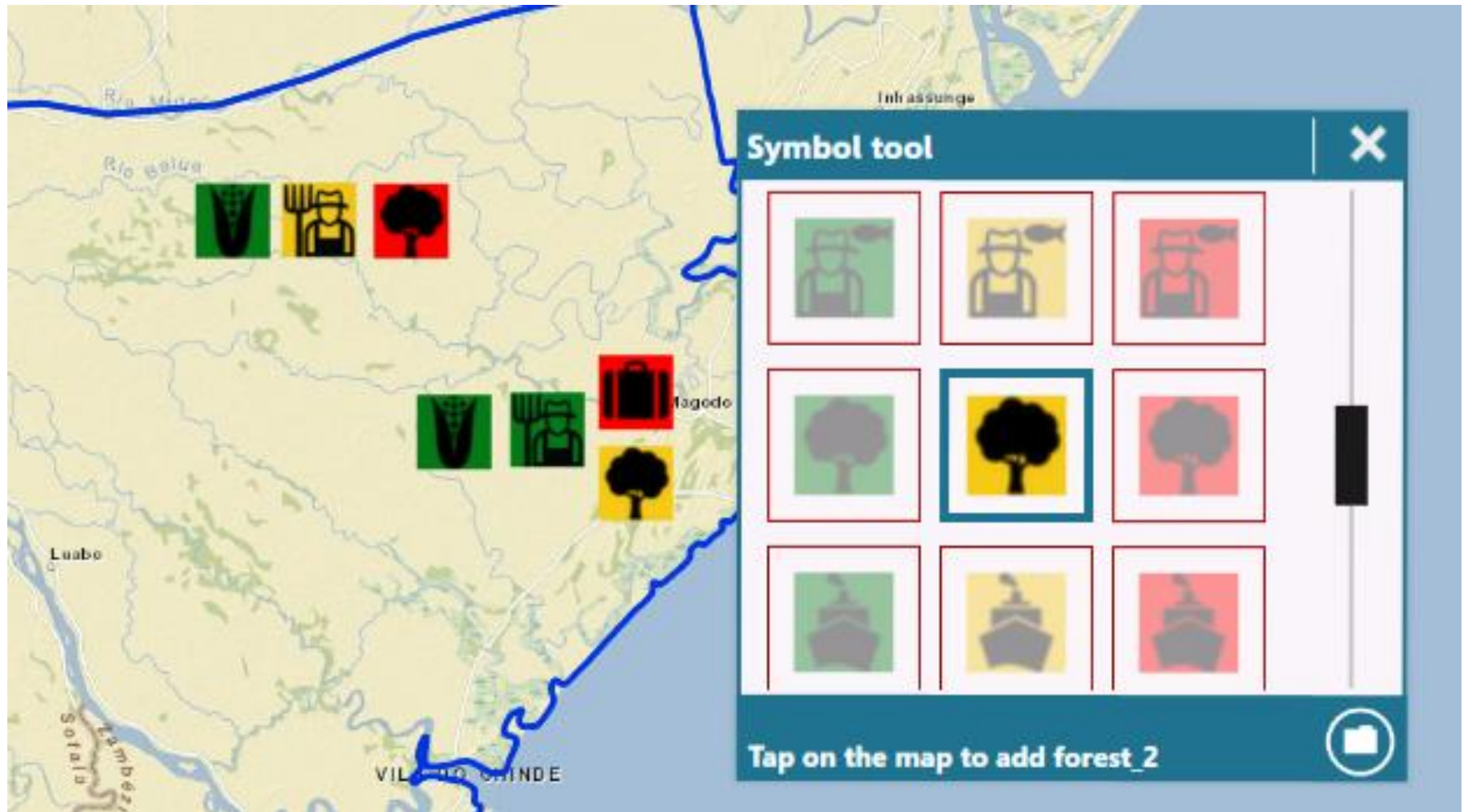
Active participation



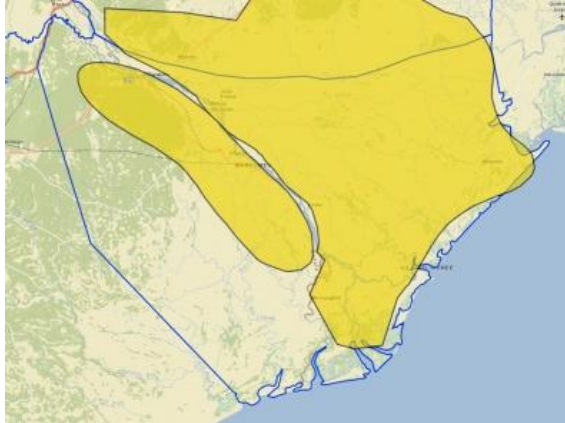
The interface of the geodesign tool



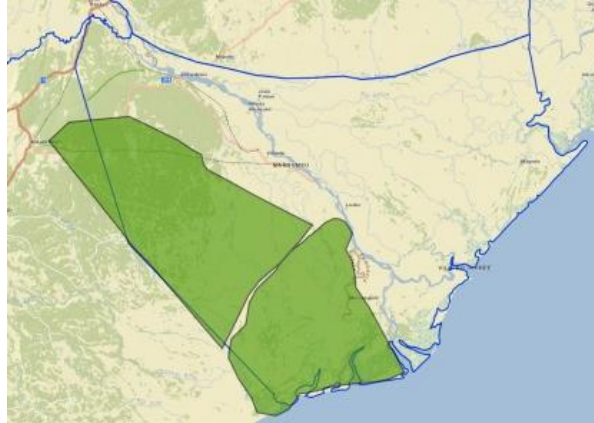
Use of sector icons for valuation and ranking



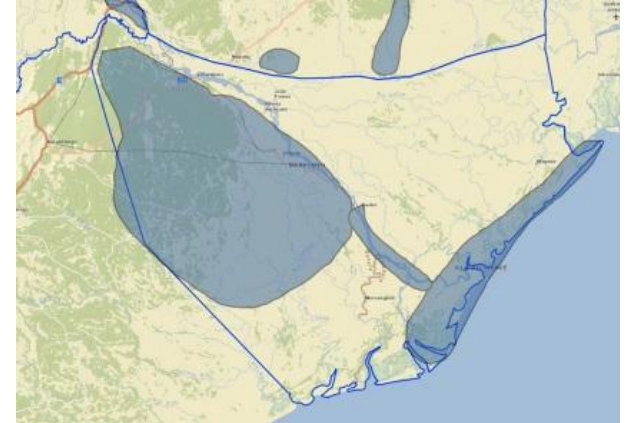
Defining the sectorial claims



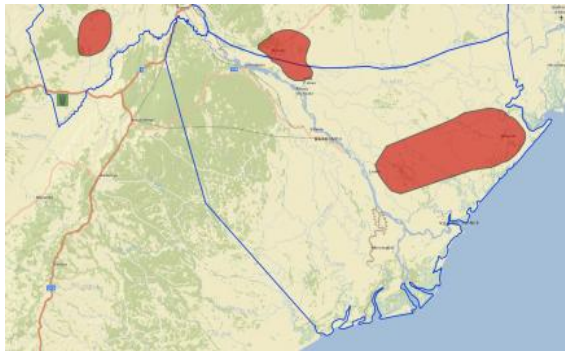
(a) Agriculture



(b) Conservation



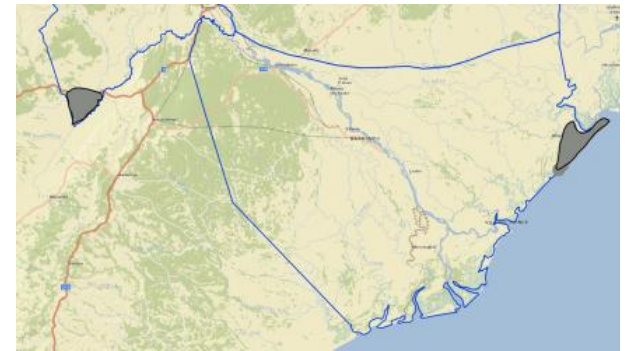
(c) Fishing



(d) Tourism

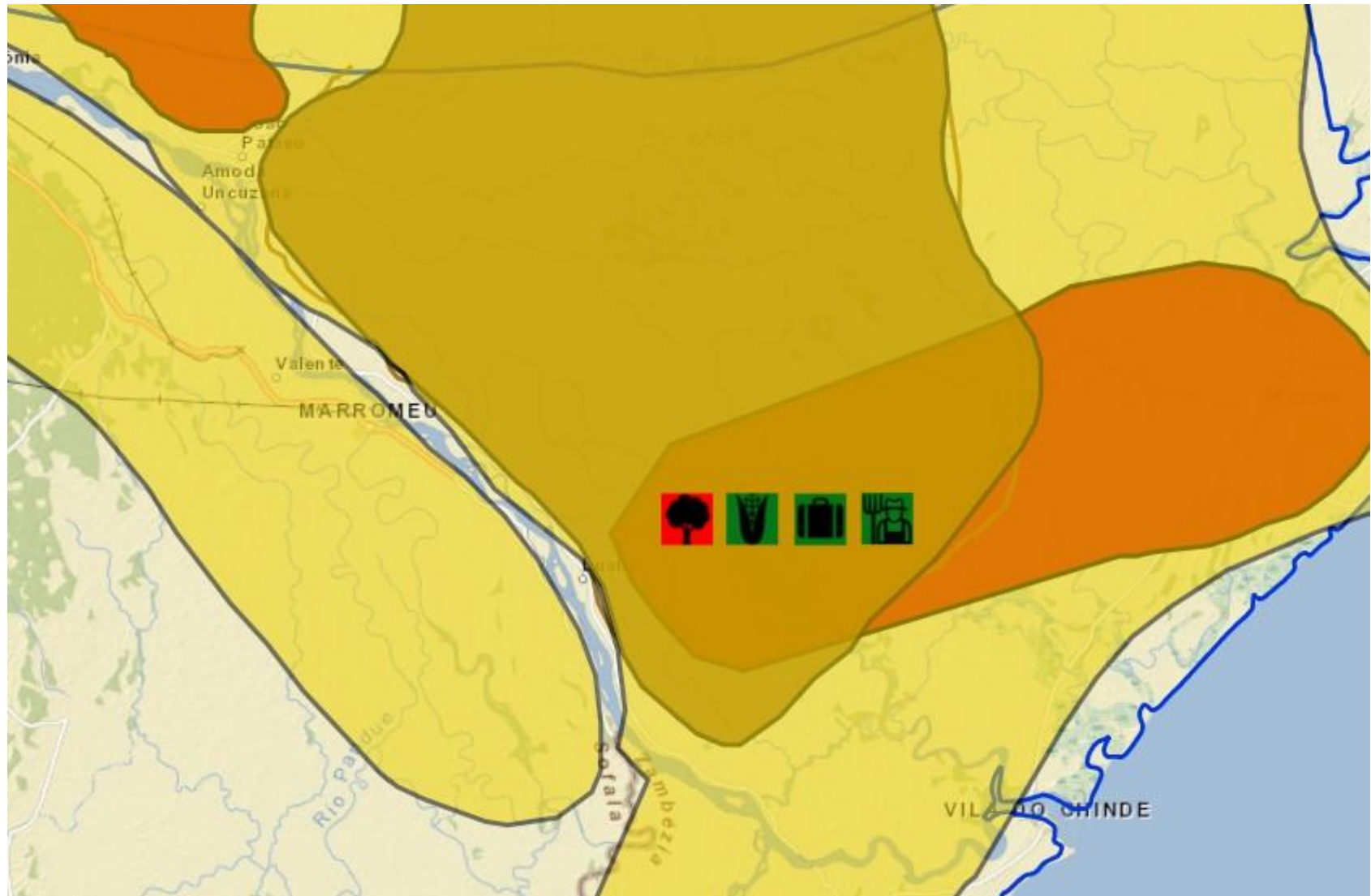


(e) Forestry

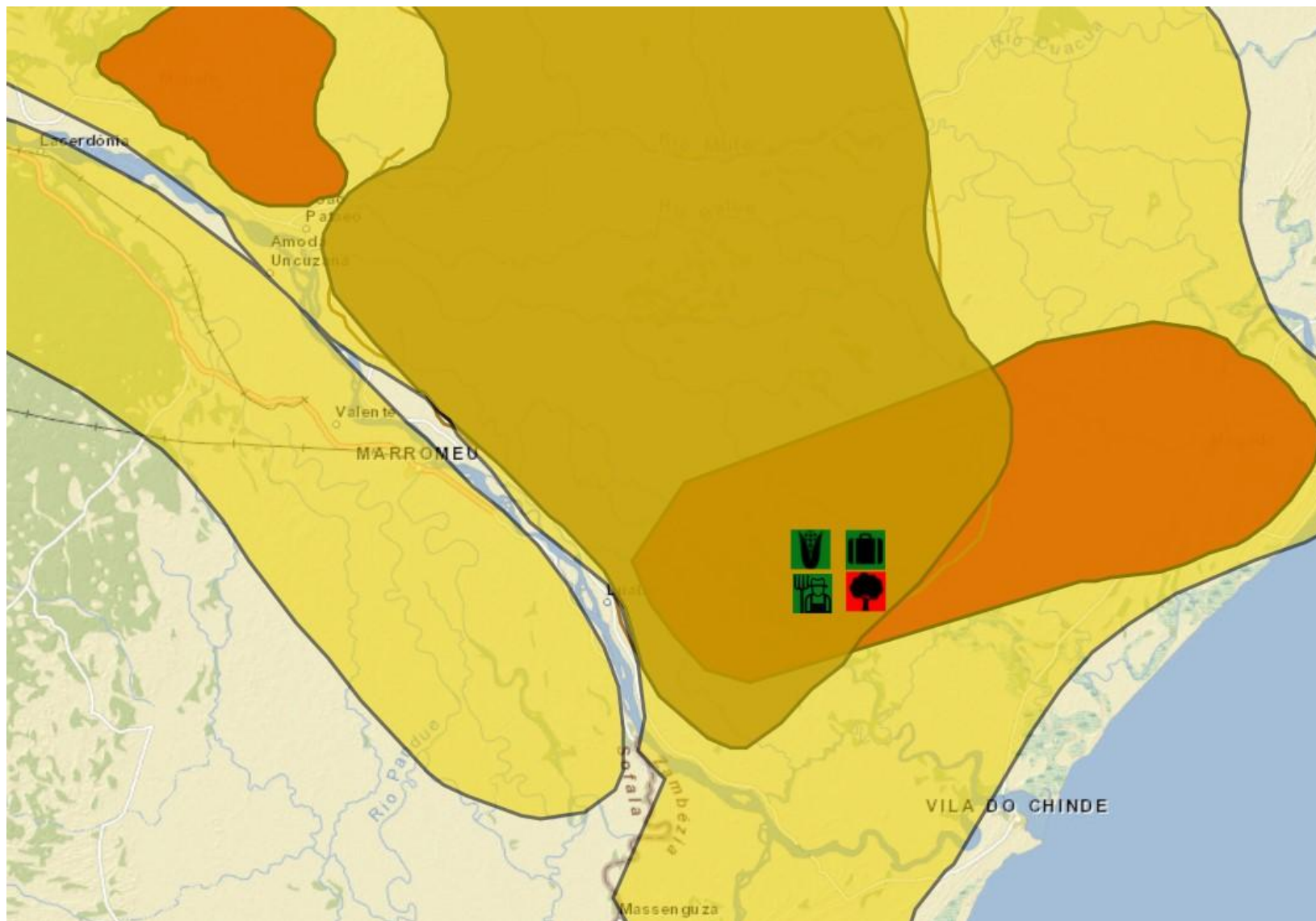


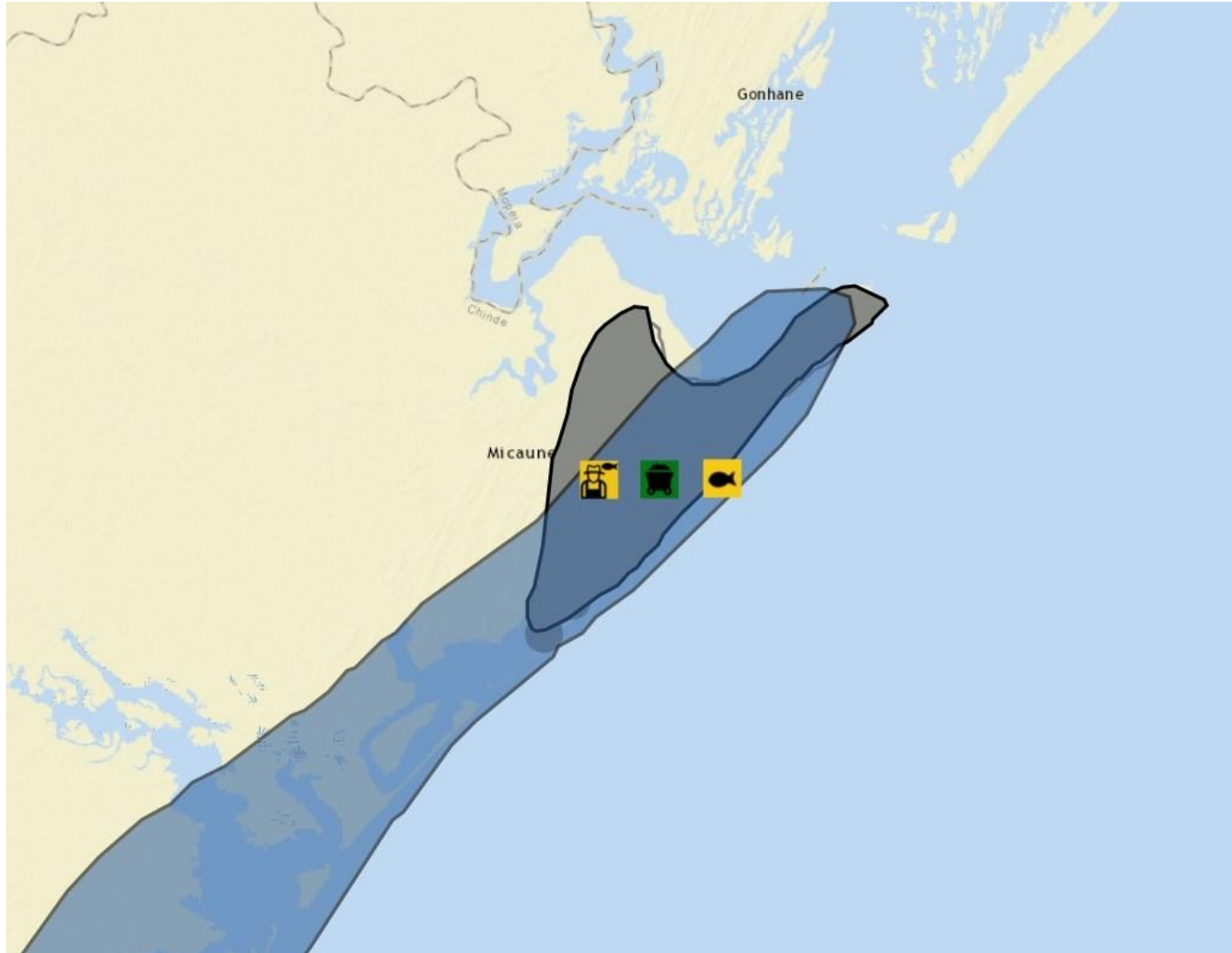
(f) Mining

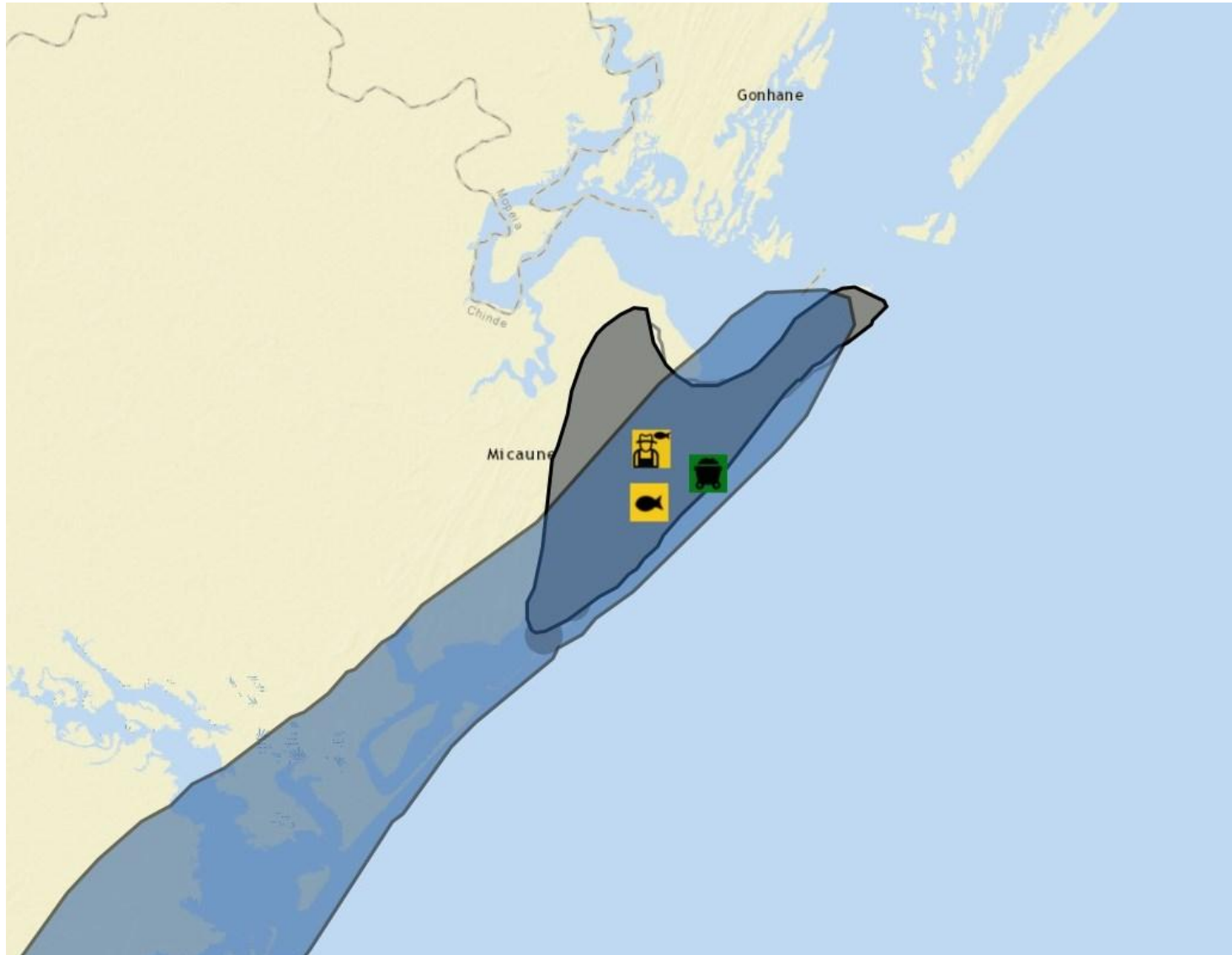
Valuation



Ranking



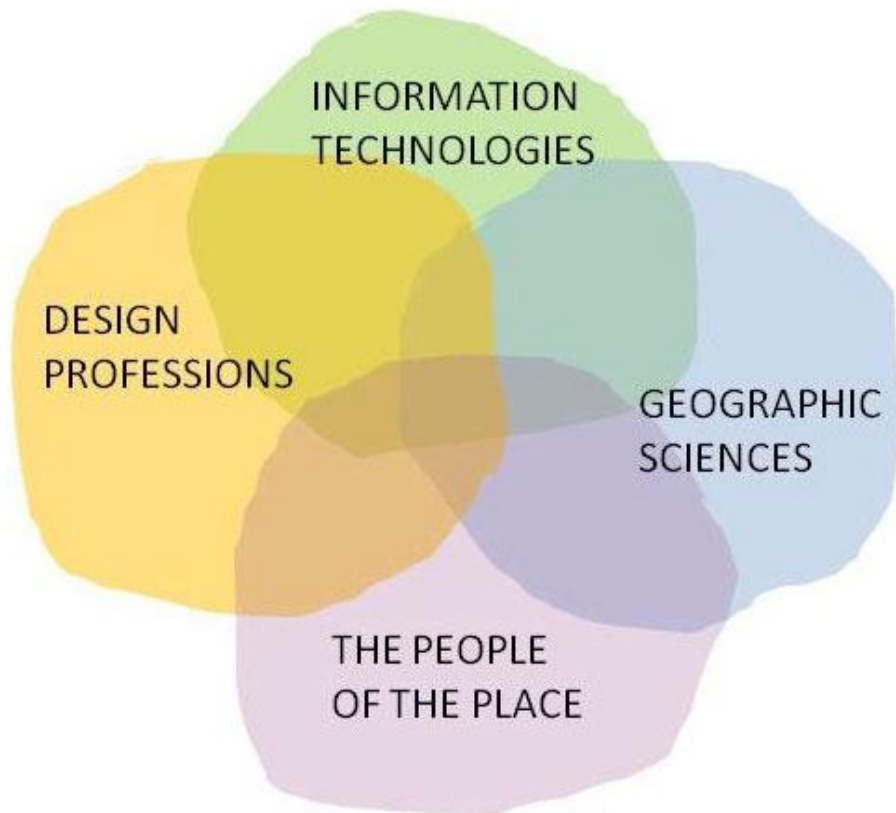




Discussing the results



Combining knowledge and expertise



Lessons for INSPIRE

- Opportunity to promote the use of spatial information;
- Use the map as communication tool
- Be demand driven;
- Provide easy access to the data in the cloud;
- Easy to understand map design.