

# From data to conservation decisions

**Identification and assessment of top priority areas for  
consercvation management using Natura 2000 data**

19.10.2015

Natura 2000 monitoring

Integrating conservation management and monitoring

Eurosite seminar, Barcelona

Ninni Mikkonen

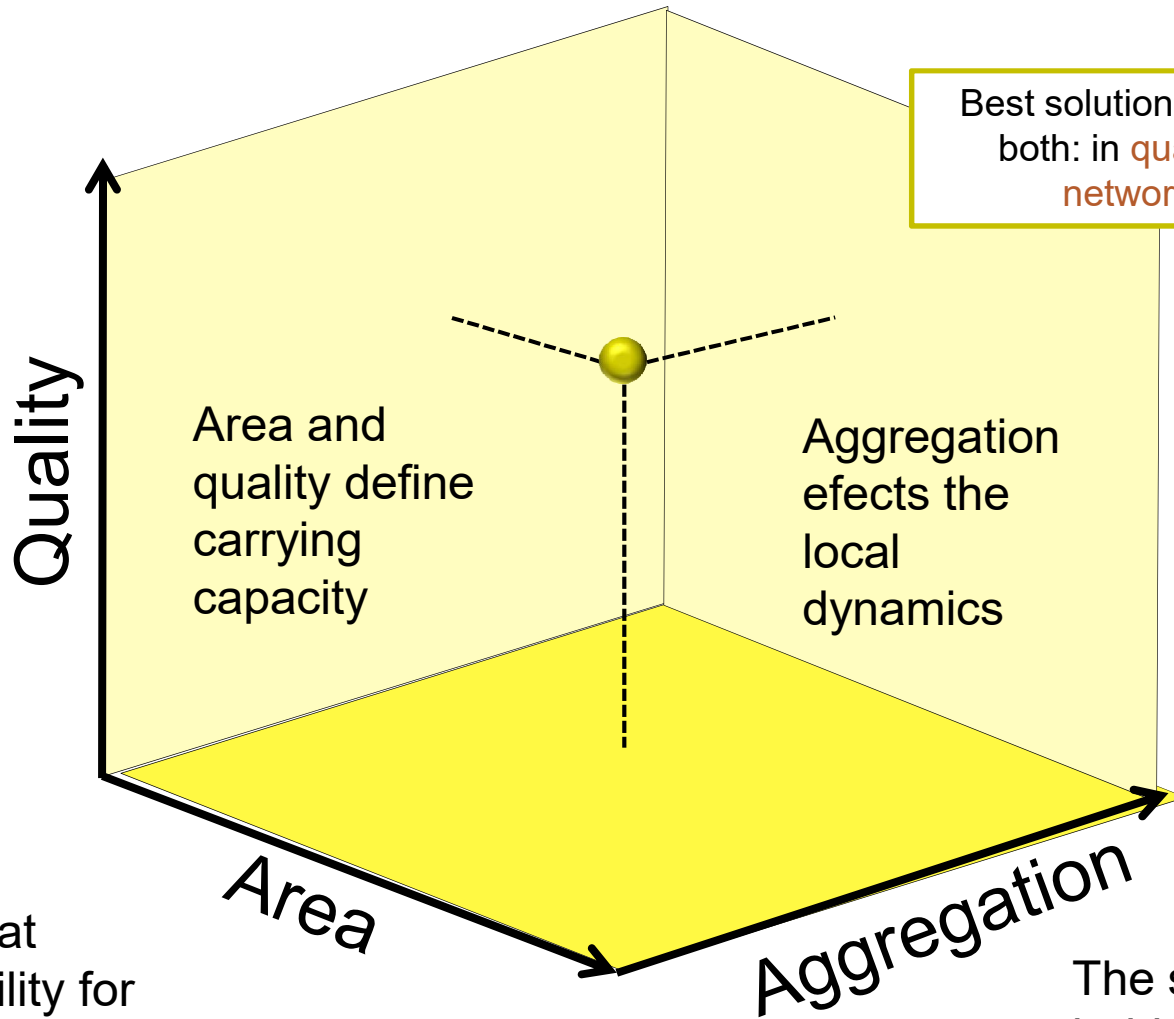
University of Helsinki / Metsähallitus Parks and Wildlife Finland  
/ Finnish Environment Institute



# Background

# "The holy trinity" of conservation

Best solutions are good in both: in **quality** and in **network** view.



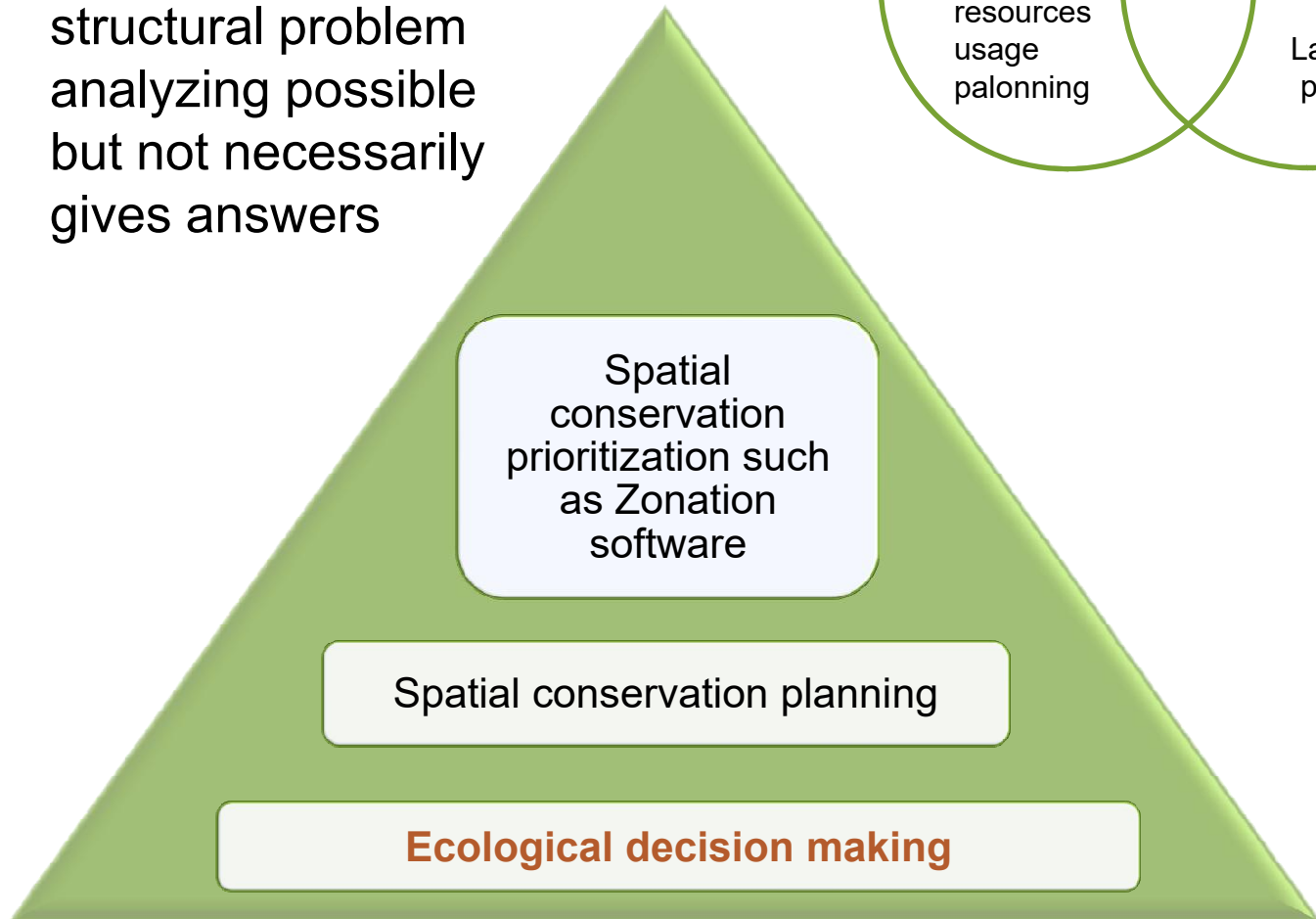
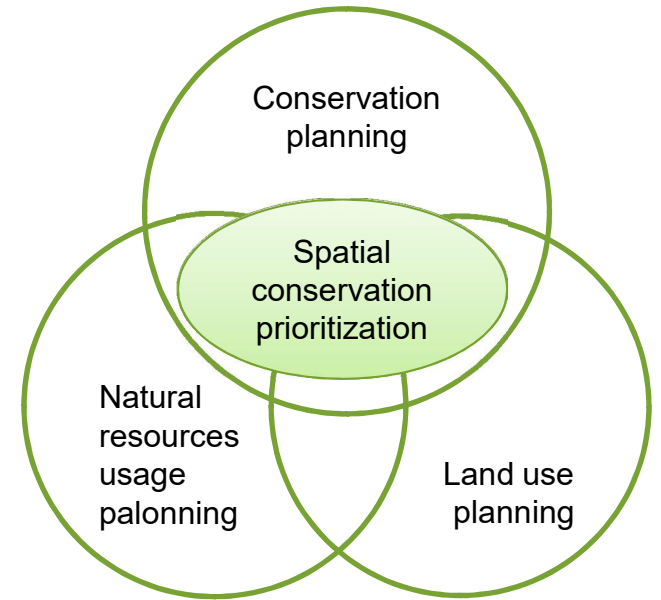
Magnitude of resources, micro climate etc.

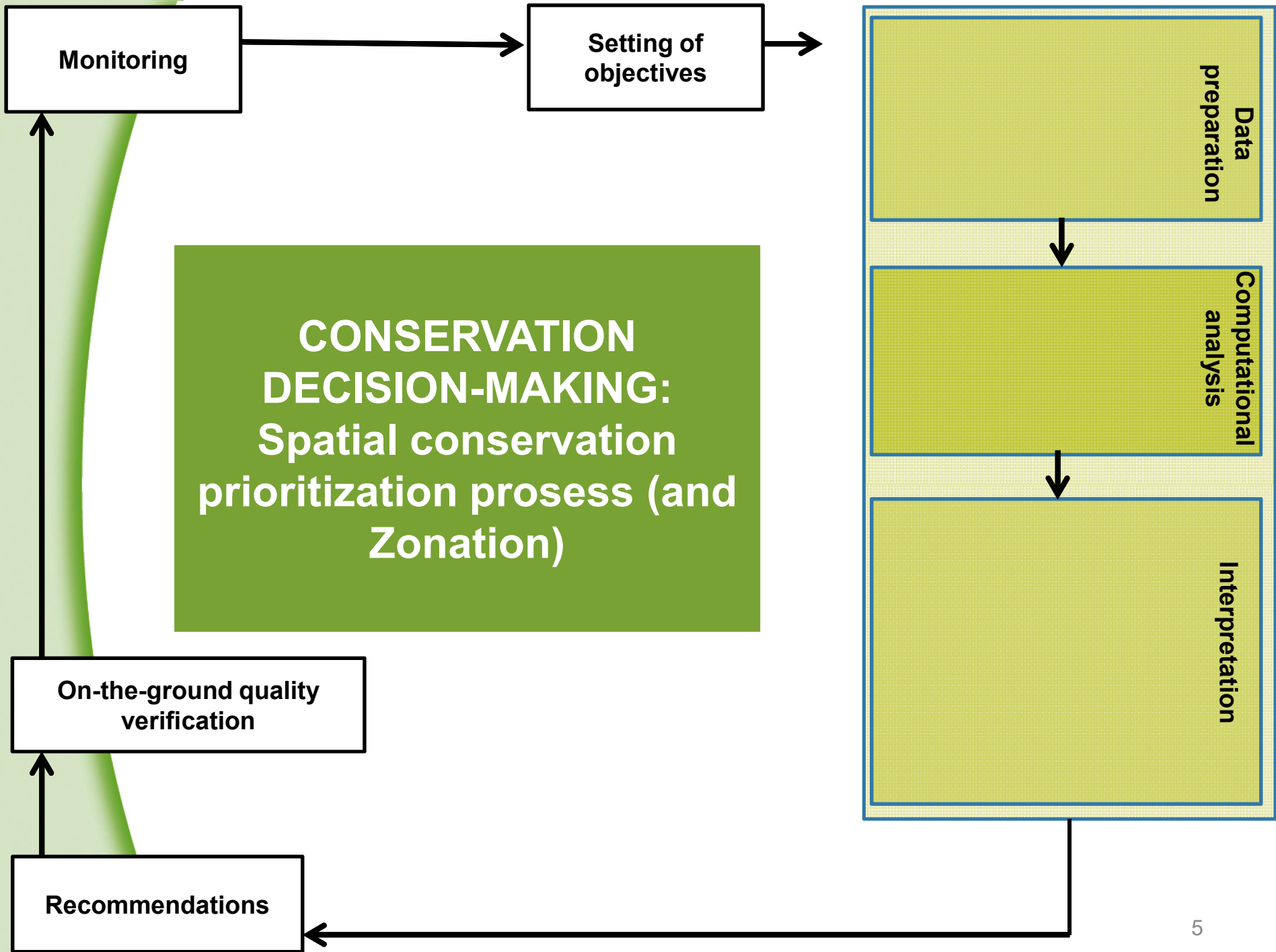
Habitat availability for conservation purposes

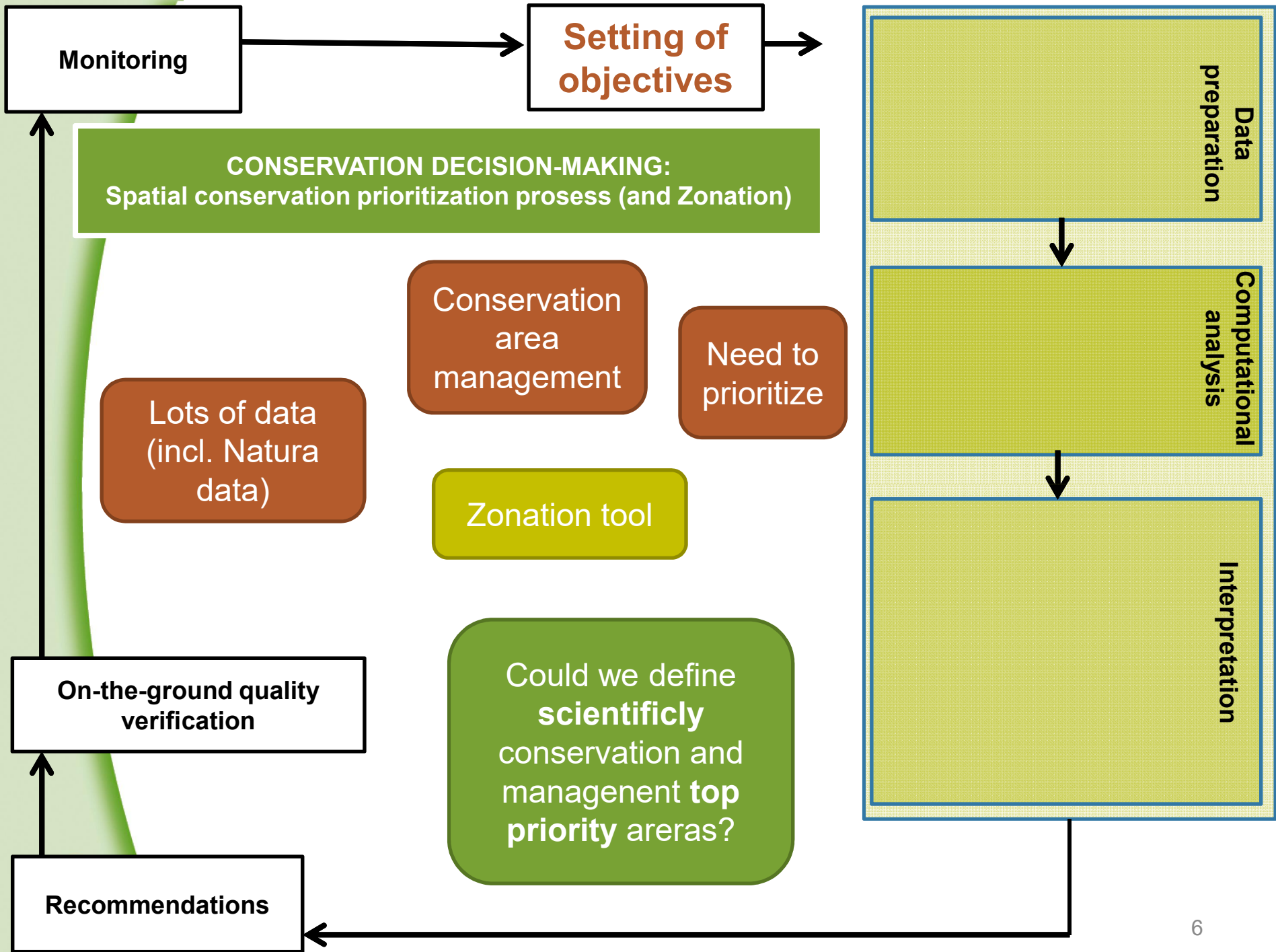
The spatial habitat network

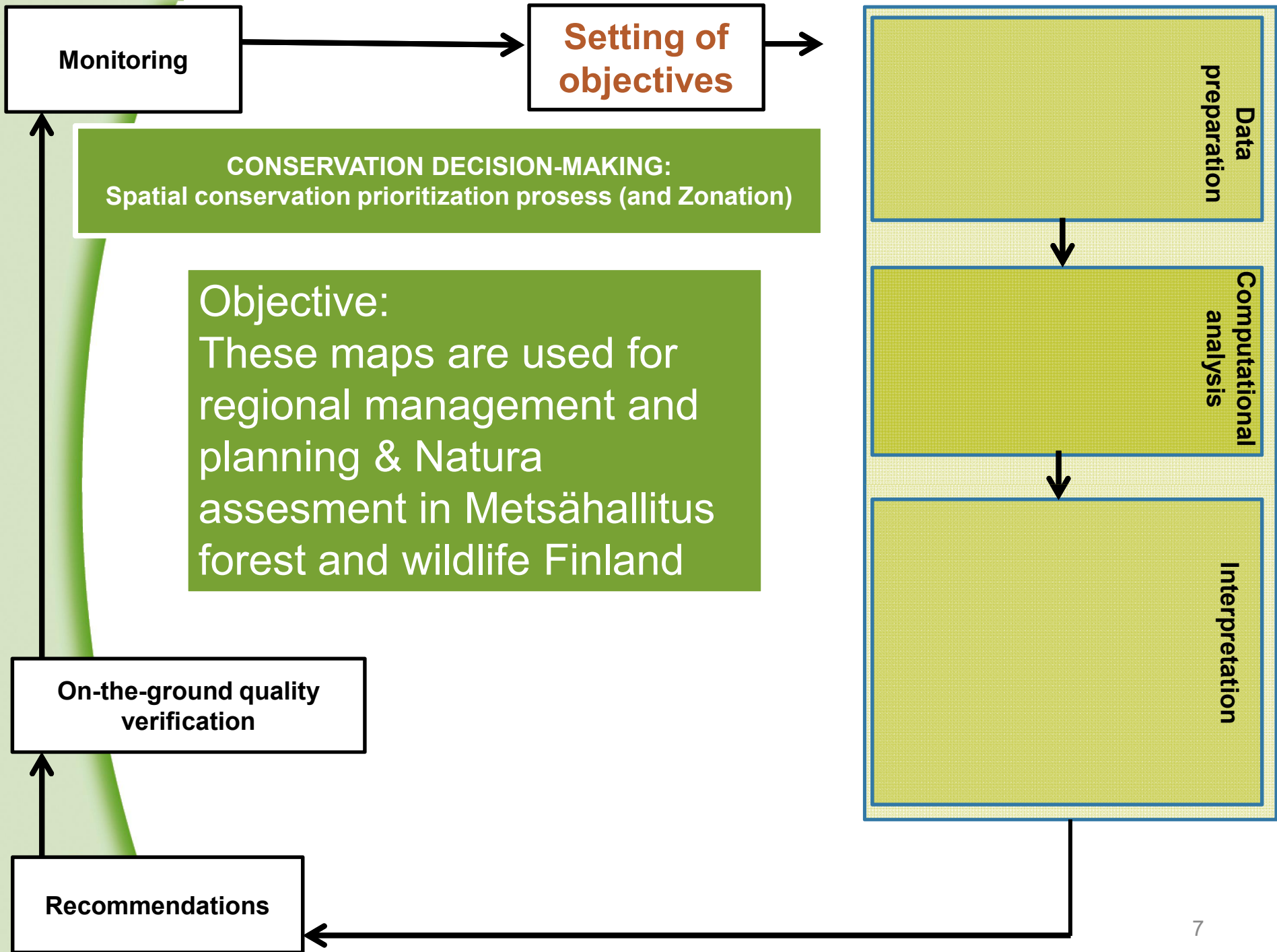
## But how?

- **Ecological decision making** makes structural problem analyzing possible but not necessarily gives answers









**Monitoring**

**Setting of objectives**

**CONSERVATION DECISION-MAKING:**  
Spatial conservation prioritization process (and Zonation)

**Data: Natura 2000 Nature type inventory data**  
(Natura 2000 habitat types: natural state and representativeness of the site) from government owned land.

- Data quality and coverage are crucial in spatial conservation prioritization
- Also utilized data from Red List 2010 Finland, State of Natura 2000 habitat types in Finland (inventory 2006) and EU priority natural habitats.

**On-the-ground quality verification**

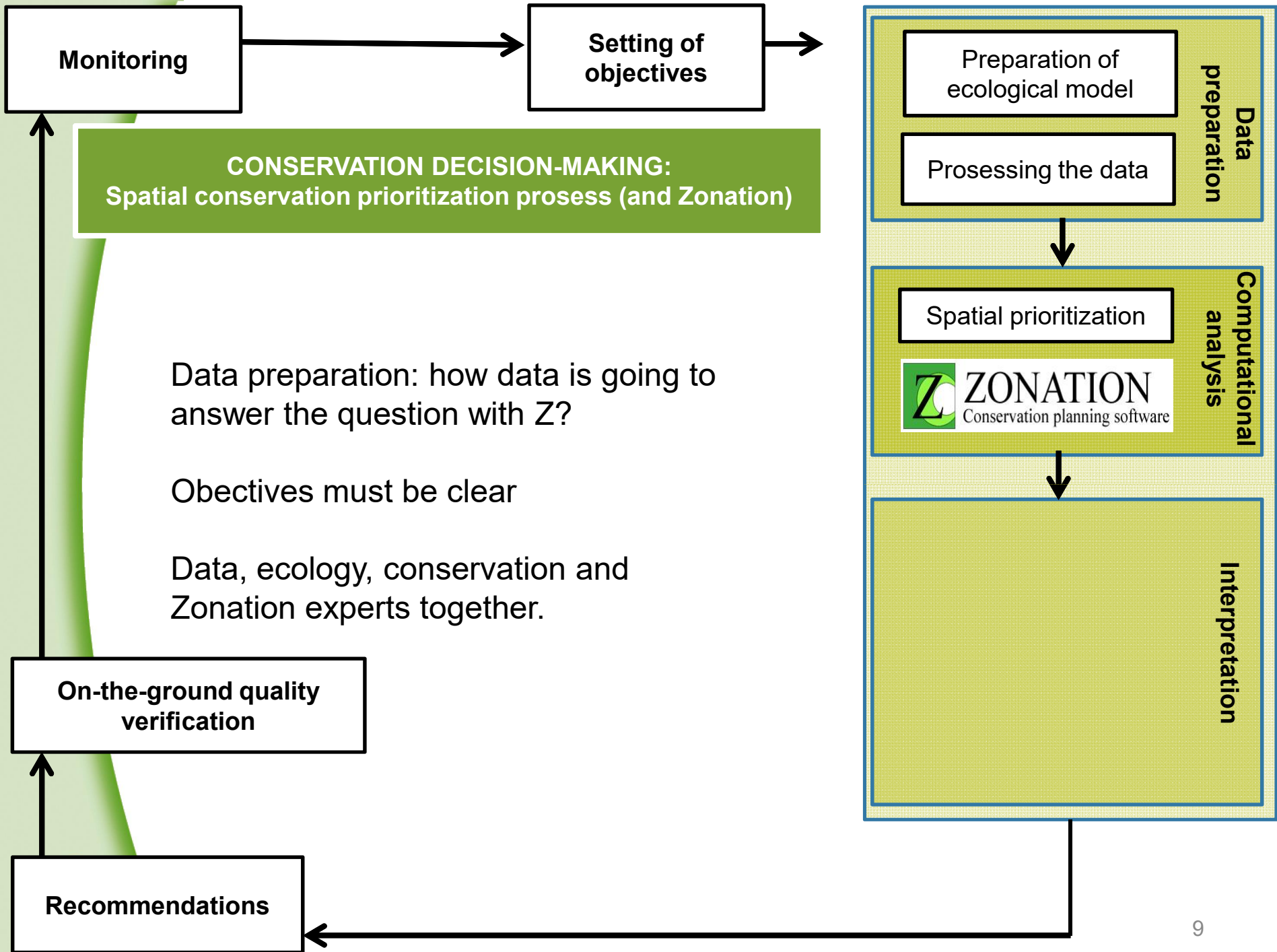
**Recommendations**

**Data preparation**

**Computational analysis**

**Interpretation**





Monitoring

Setting of objectives

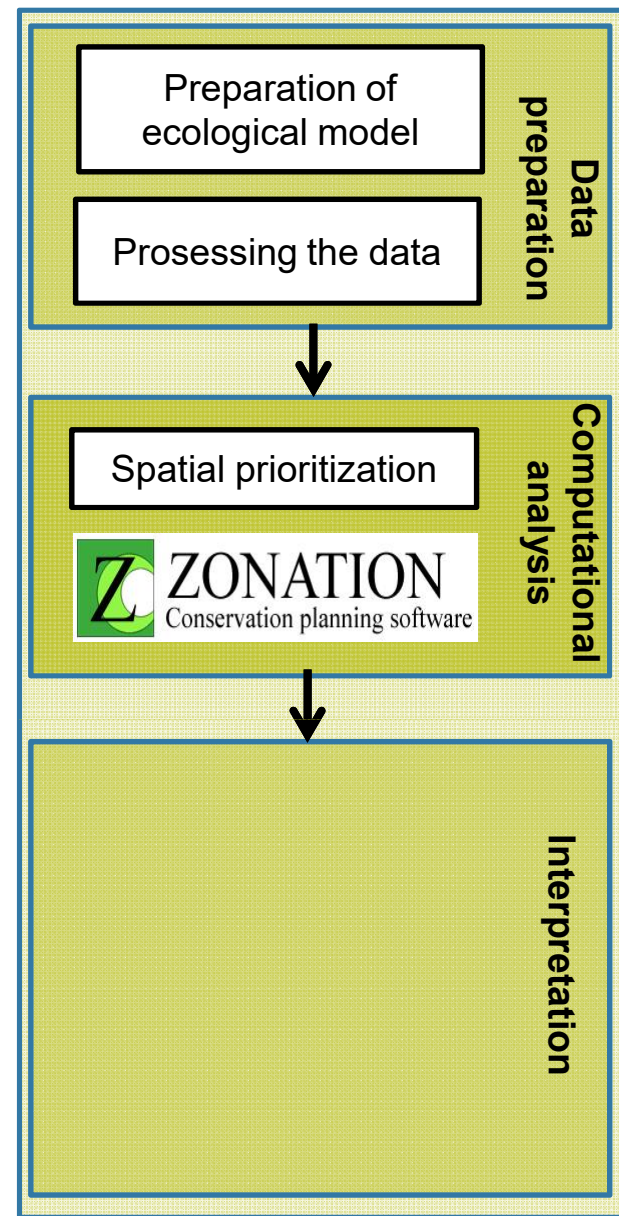
## Zonation in a nutshell

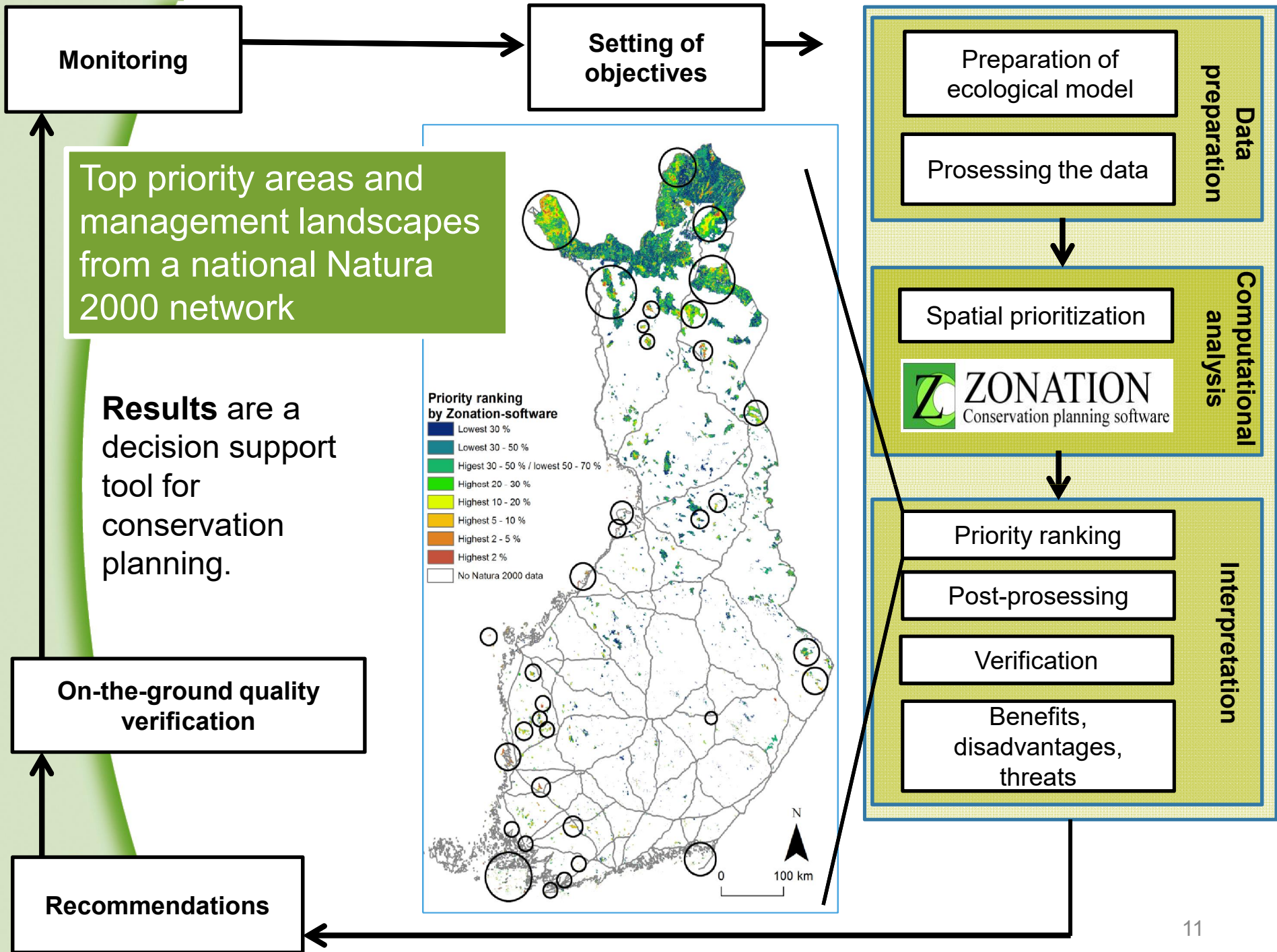
- Zonation produces **balanced, complementarity-based priority ranking** based on the **occurrence levels** of biodiversity features and **costs** in sites (grid cells).
- The ranking is generated by iteratively removing the least valuable remaining cell, accounting for **connectivity** and the **balance between features** in the process.
- Z can process quite **large data sets**.

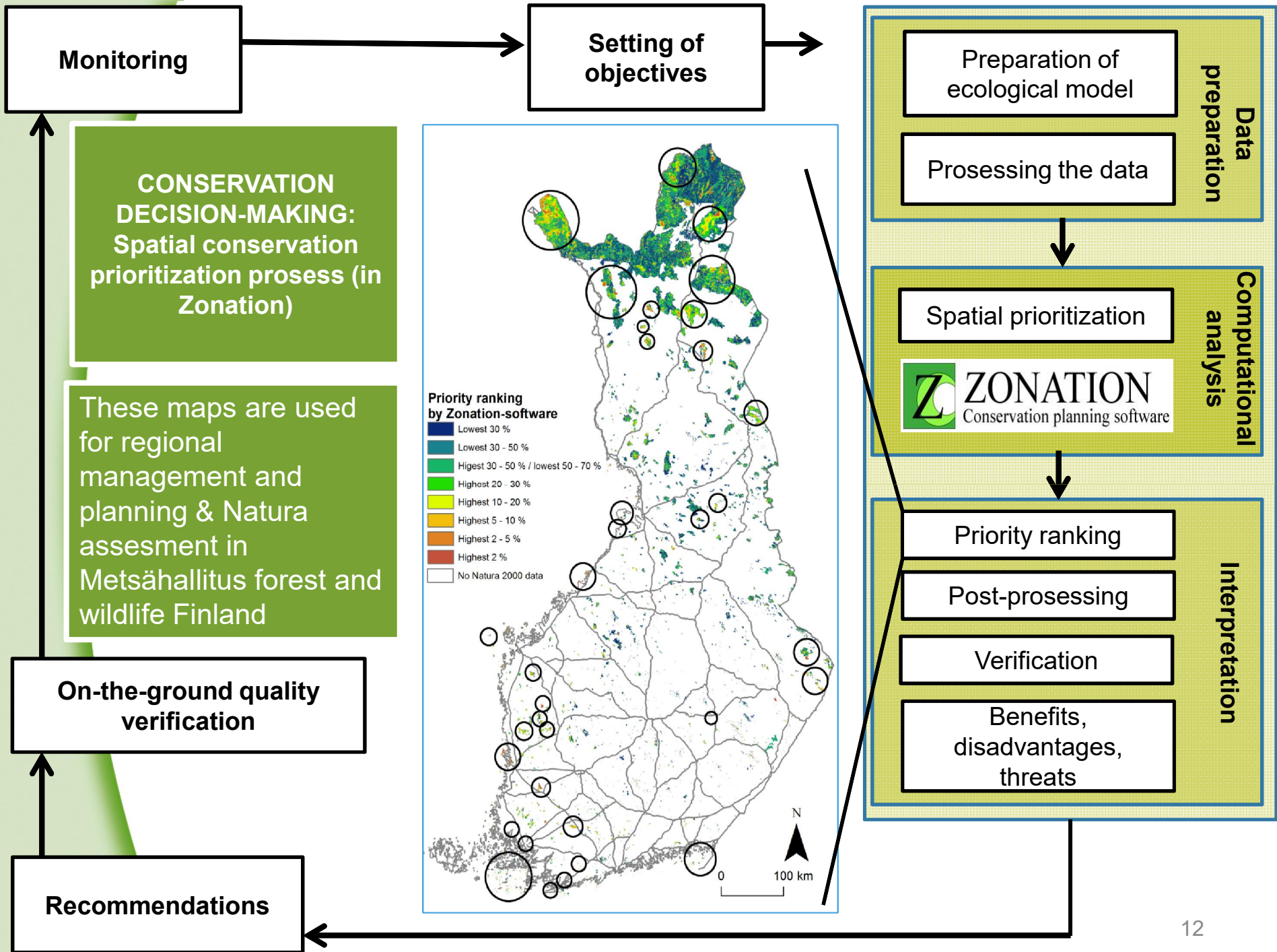
On-the-ground quality verification

- Zonation is **freely available**:  
<http://cbig.it.helsinki.fi/>

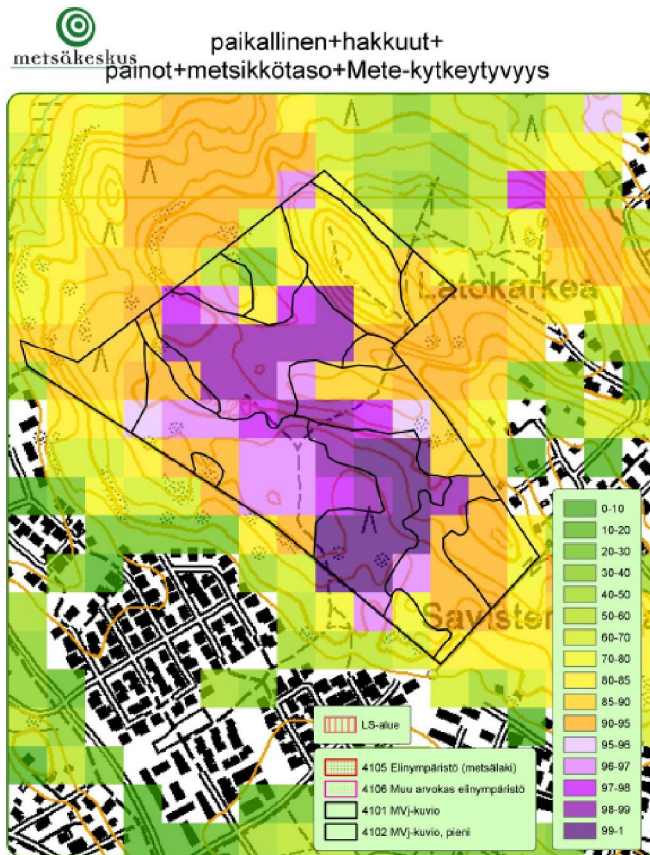
Recommendations







# From results to conservation



Kartta on tulostettu Metsäkeskuksen  
metsätietojärjestelmästä 4.7.2013

1:5 000

- Decisionmakers have active role
  - Clear objectives
    - Clear benefits
  - Clear action plan
- Put effort on result discussion and user training, don't spoil with bad GIS equipment etc.
- Clear roles inside process
- Remember: Garbage in – garbage out

# Thank you!

**Ninni Mikkonen**

Coordinator

Finnish Environmental Institute

ninni.mikkonen@ymparisto.fi

tel. +358 50 441 8980

Forest Biodiversity Conservation Programme METSO:

metsonpolku.fi/en

Zonation software: <http://cbig.it.helsinki.fi/software>

## ANALYYSIT

1

Ekologisesti  
arvokkaimpien  
alueiden  
tunnistaminen

2

Ekologisesti  
vähemmän  
arvokkaiden  
alueiden  
tunnistaminen

3

Suojelalueiden  
arviointi

4

Suojelualue-  
verkoston  
kehittäminen