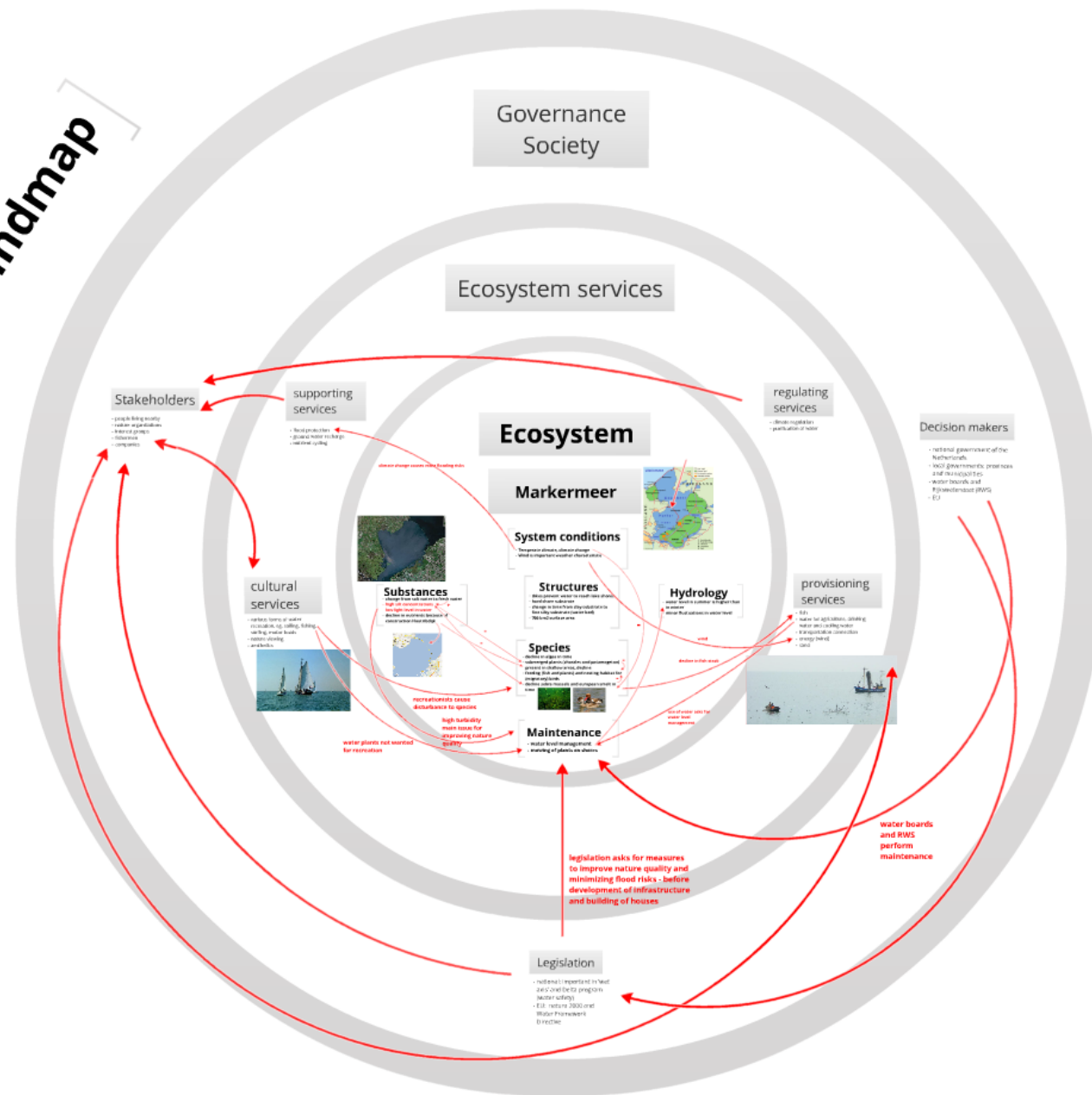
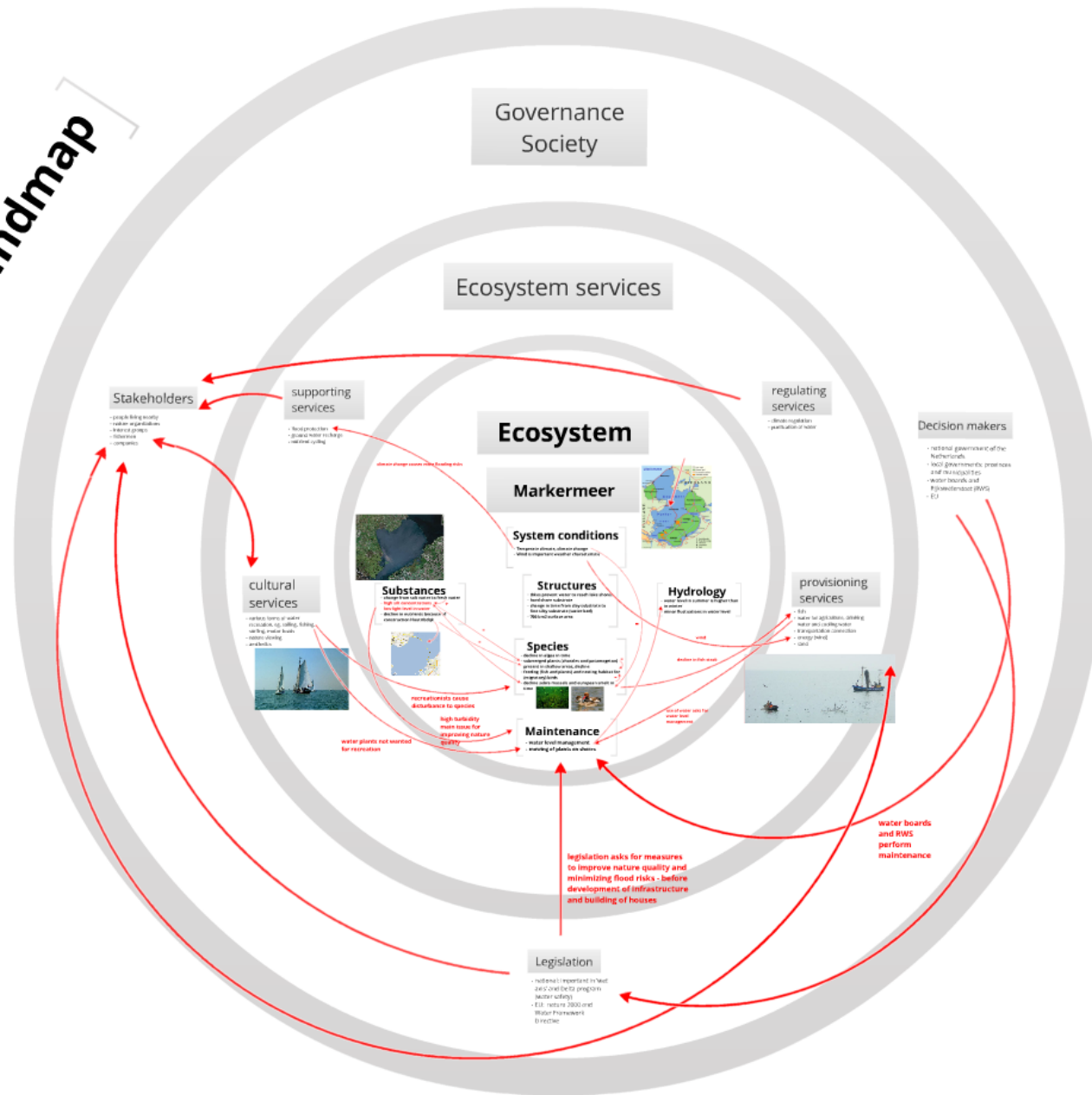


Ecomindmap



Ecomindmap



supporting services

- flood protection
- ground water recharge
- nutrient cycling

regulating services

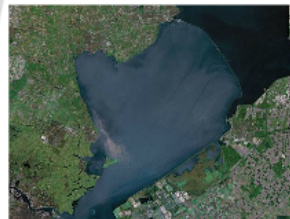
- climate regulation
- purification of water

Ecosystem

Markermeer

System conditions

- Temperate climate, climate change
- Wind is important weather characteristic



Substances

- change from salt water to fresh water
- high silt concentrations
- low light level in water
- decline in nutrients because of construction Houtribdijk



Structures

- dikes prevent water to reach lake shores
- hard shore substrate
- change in time from clay substrate to fine silty substrate (water bed)
- 700 km2 surface area

Hydrology

- water level in summer is higher than in winter
- minor fluctuations in water level

provisioning services

- fish
- water for agriculture, drinking water and cooling water
- transportation connection
- energy (wind)
- sand

Species

- decline in algae in time
- submerged plants (charales and potamogeton) present in shallow areas, decline
- feeding (fish and plants) and nesting habitat for (migratory) birds
- decline zebra mussels and european smelt in time



Maintenance

- water level management
- mowing of plants on shores

cultural services

- various forms of water recreation, eg. sailing, fishing, surfing, motor boats
- nature viewing
- aesthetics



climate change causes more flooding risks

wind

decline in fish stock

use of water asks for water level management

high turbidity main issue for improving nature quality

recreationists cause disturbance to species

water plants not wanted for recreation

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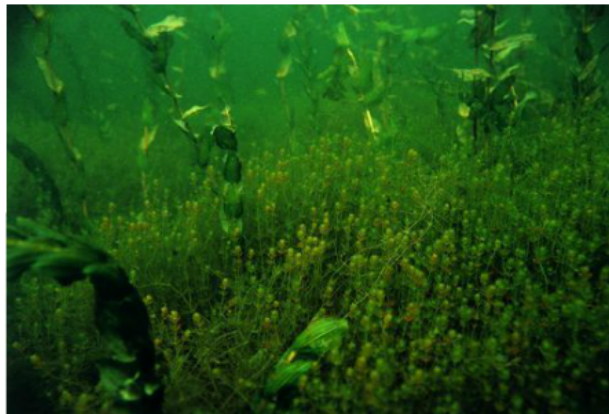
Hydrology

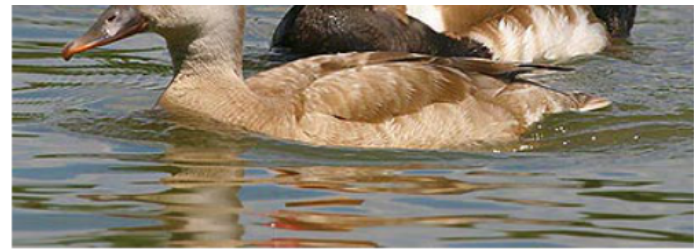
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Ecosystem services

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- purification of water

supporting services

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- ground water recharge
- nutrient cycling

Stakeholders

- people living nearby
- nature organisations
- interest groups
- fishermen
- companies

Decision makers

- national government of the Netherlands
- local governments: provinces and municipalities
- water boards and Rijkswaterstaat (RWS)
- EU

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- nature viewing
- aesthetics

recreationists cause disturbance to species

high turbidity main issue for improving nature quality

water plants not wanted for recreation

legislation asks for measures to improve nature quality and minimizing flood risks - before development of infrastructure and building of houses

water boards and RWS perform maintenance

climate change causes more flooding risks

wind

decline in fish stock

use of water asks for water level management



Ecosystem services

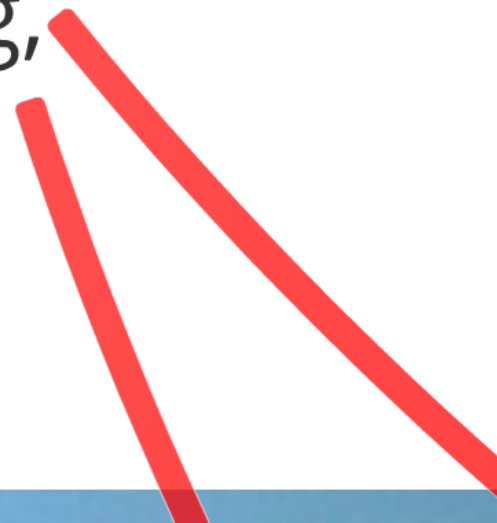
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provisioning services

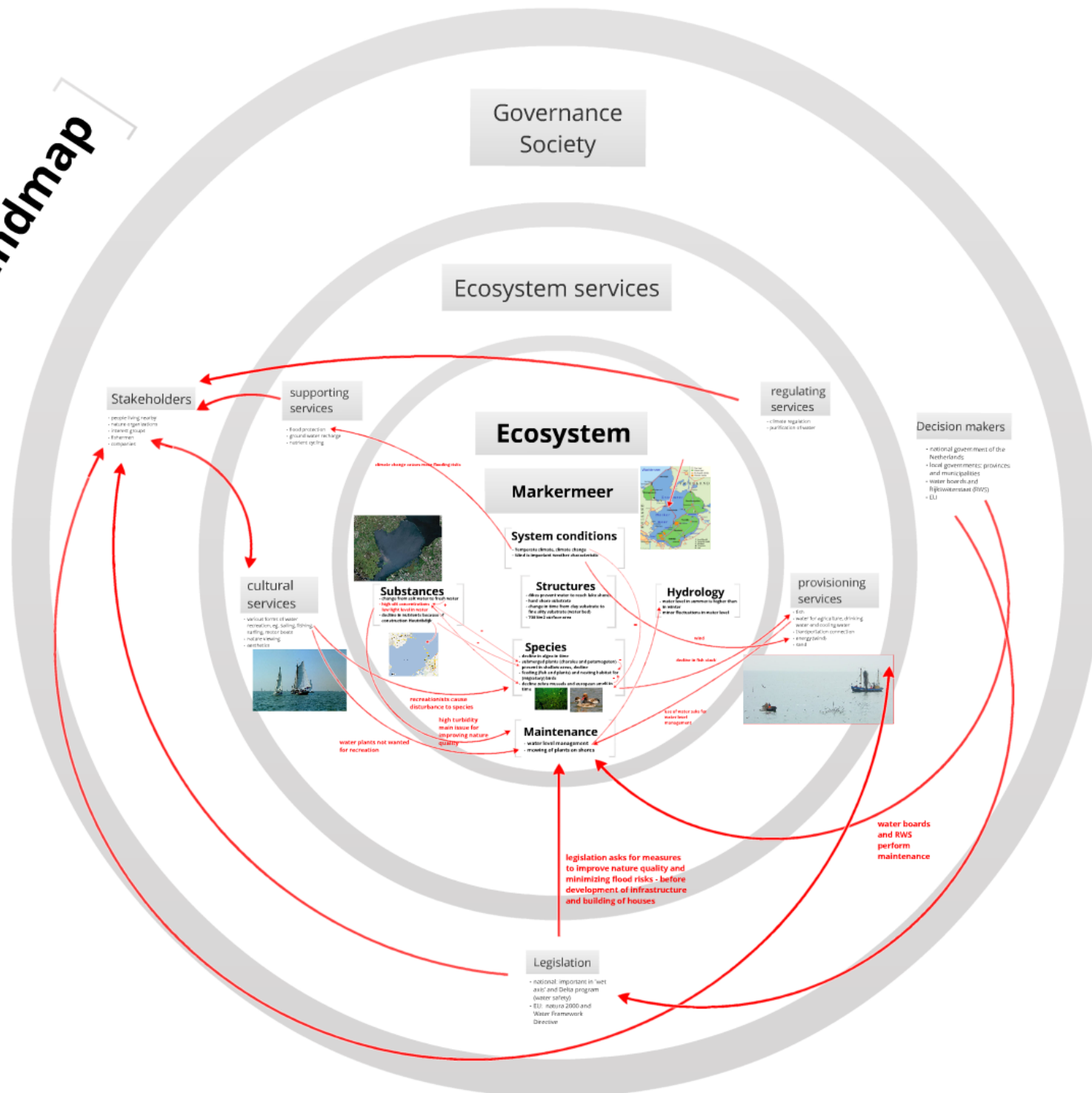
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Ecomindmap



Governance Society

Decision makers

- national government of the Netherlands
- local governments: provinces and municipalities
- water boards and Rijkswaterstaat (RWS)
- EU



Legislation

- national: important in 'wet axis' and Delta program (water safety)
- EU: natura 2000 and Water Framework Directive

Stakeholders

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