



Challenges related to diffuse agricultural pollution in Estonia to achieve WFD goals

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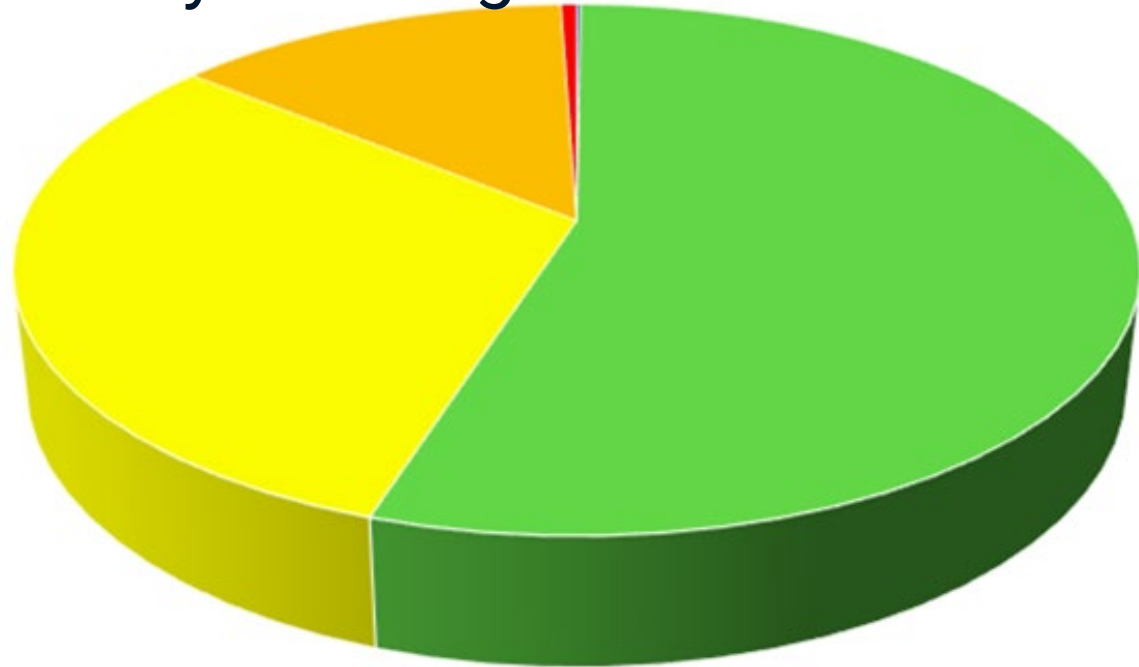
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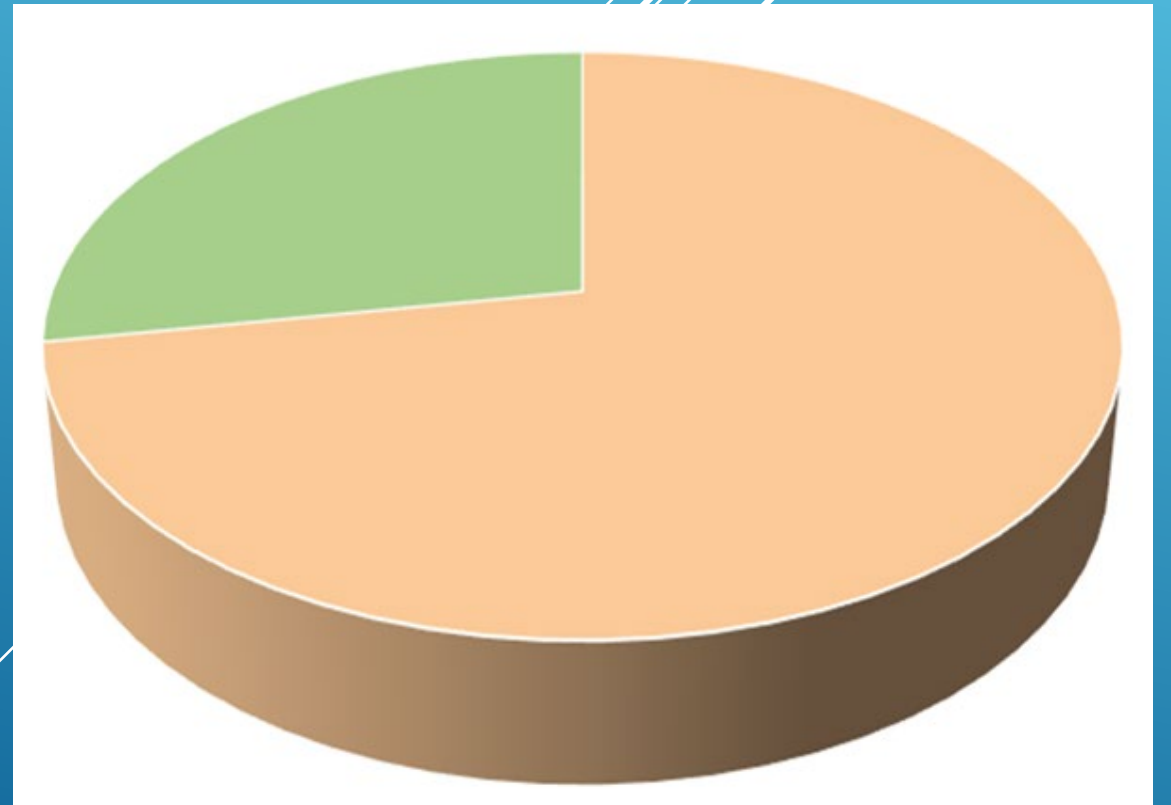
CURRENT STATUS

- Estonian has **744** water bodies
- Only **55%** in good status



■ high ■ good ■ moderate ■ poor ■ bad

- **68%** of water bodies (242) are not in good status because of agricultural pollution





OUR MAIN CHALLENGES

- Nutrient-rich groundwaters having a negative impact on surface water bodies
- Seasonal leaching
- Farmers' low awareness of environmentally sustainable agricultural practices
- Insufficient implementation of measures





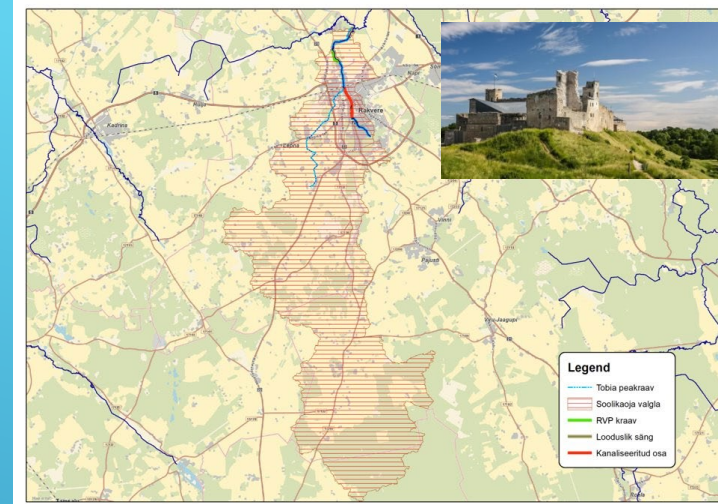
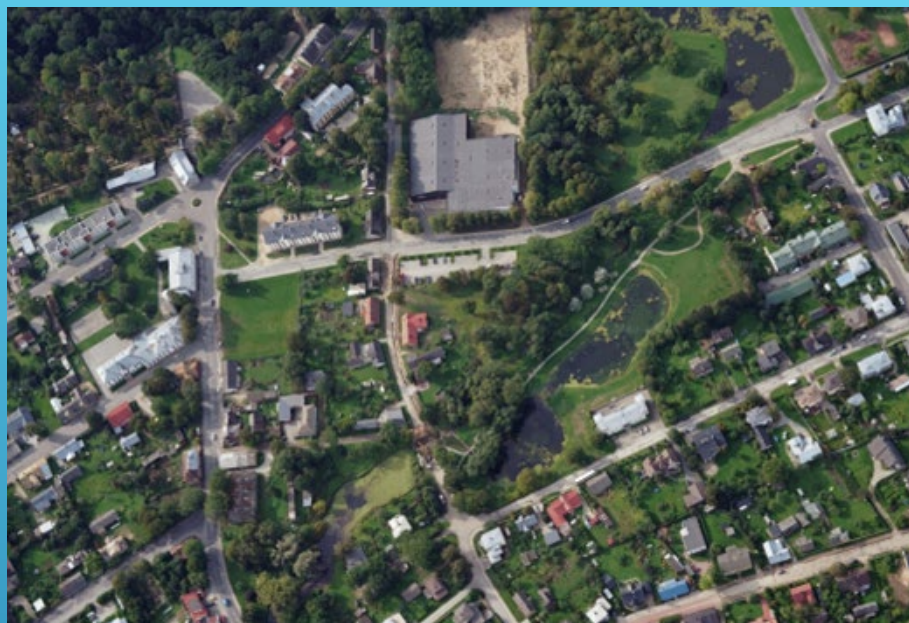
CASE STUDY

- Project: **LIFE IP CleanEST**
- Object: **Soolikaoja**

- Heavily **modified** waterbody
- **7,5 km long**, catchment area **122 km²**
- The ecological status is **bad**
- The creek locates in **Nitrate Vulnerable Zone**

- Aim: reducing the negative impact of nutrient-rich groundwater on surface water bodies

- Measures: **floating treatment wetlands**; and **in-stream wood chip bioreactor**





COST-EFFECTIVE SOLUTIONS FOR DIFFUSE POLLUTION

- **Floating treatment wetlands:** aquatic plants on artificial platforms capturing nutrients and removing pollutants.
- **Wood chip bioreactor:** denitrification is often limited by carbon in the natural environment, but the process can be stimulated by the addition of external sources.





NEXT STEPS TO REDUCE AGRICULTURAL DIFFUSE POLLUTION

- Agricultural and cost-effective site-specific measures
- Effective catch crops to reduce leaching
- Raising awareness:
 - Improving the farm adviser services
 - Liming to regulate soil acidity
 - Calculating plant nutrient flow at field and on farm level
- Development and implementation of conditional measures that guides the farmers to adopt sustainable agricultural methods and consider environmental criteria





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Thank you!



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