



User: custodian  
Wednesday, July 26, 2023, 18:59:49  
53.214182N, 6.0399083E  
Copyright: aqa.earth



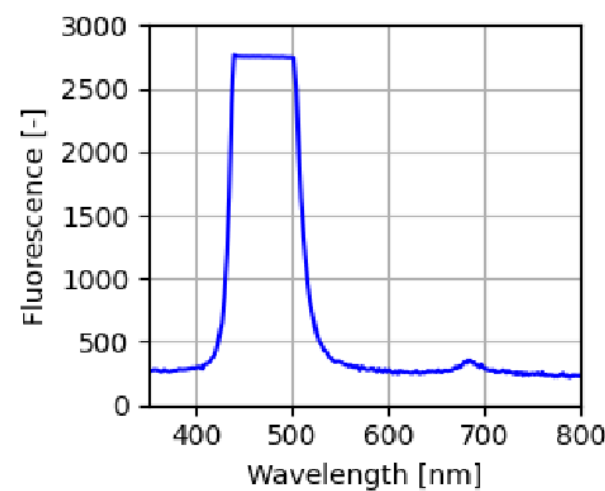
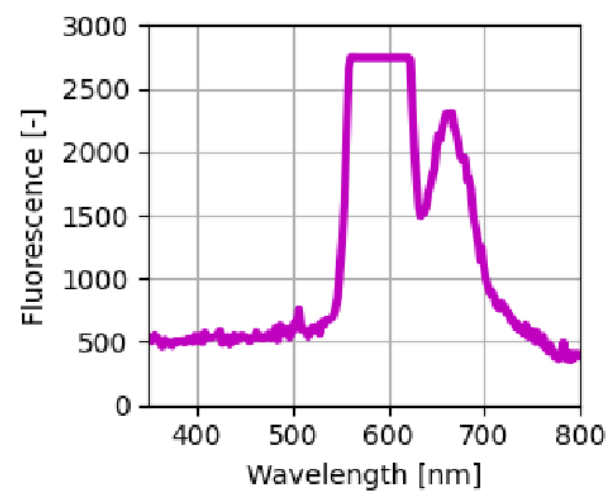
# introduction

- In 2023 we performed a test in cooperation with KBF and Noardlike Fryske Wâlden to monitor ditch and soil quality.
- We successfully tested our surface water and soil sensors at farms in Jistrum and De Tike and drafted a dashboard.
- In March 2024 our soil and water sensors 2.0, developed in the framework of CircinWater, will be ready.
- The tests will be continued with the new sensors in 2024 and used for validating our physics based models relating soil quality to ditch water quality.
- The results will provide farmers information on the relation between soil and water quality and tools for improving their operations.
- The data will also provide tools to farmers to prove their ecologically friendly operations.



approach

# Soil and water sensors



 sensor data

**floater**  
water sensor  
spectra

**pinner**  
ground sensor

**future**  
sensor(s)

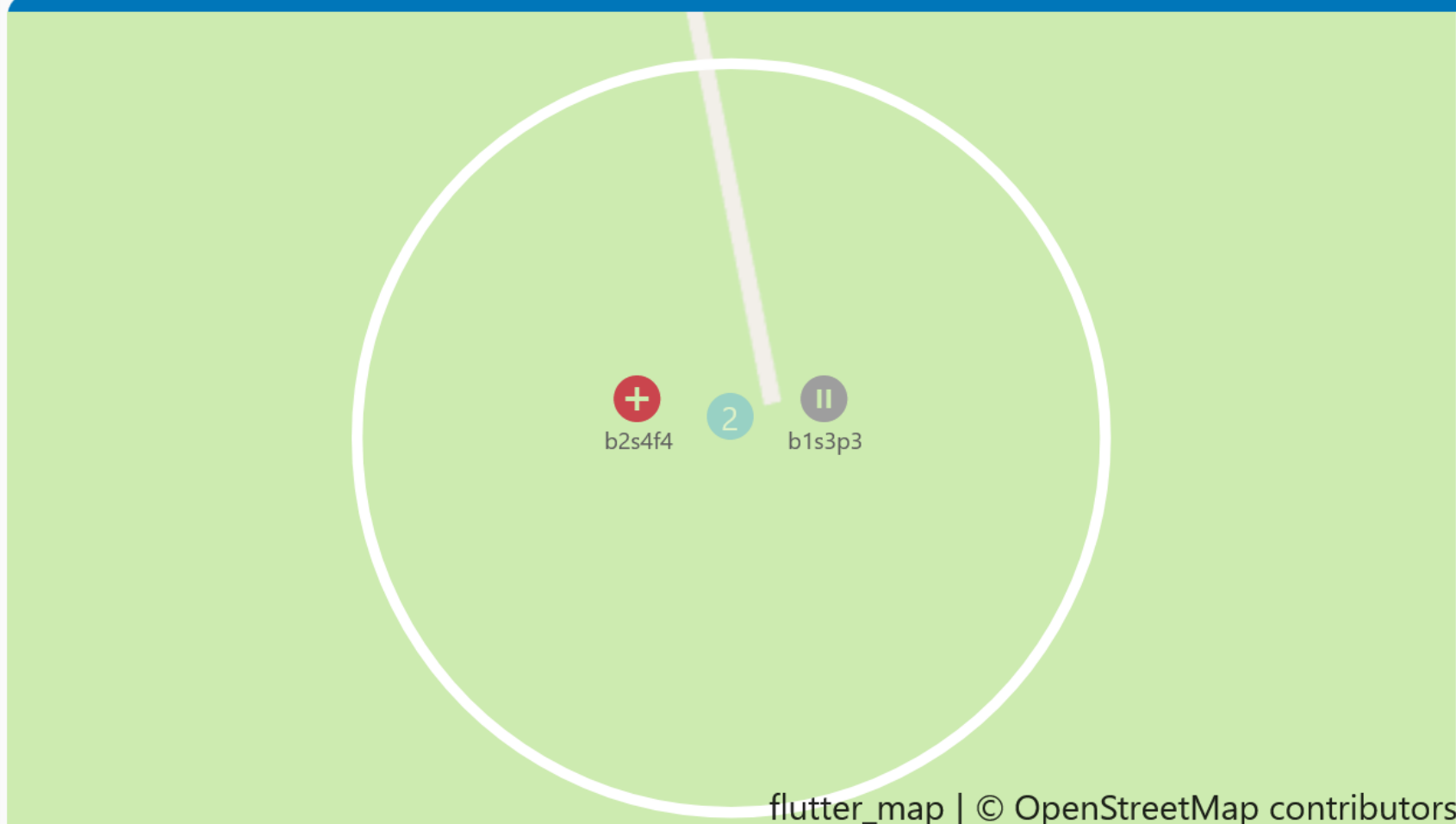


results


# Tests at farmers in cooperation with KBF

de Tike






quality sensors data prediction latest sensor update: 20:47:20



flutter\_map | © OpenStreetMap contributors






**12 September 2023**  
*overall quality* 

*quality elements*




blue-green algae	
green algae	
water temperature	
conductivity of water	
visibility	


*now*


**EU Water Framework Directive color coding**


				
high	good	moderate	poor	bad


**legend**


-  water quality, physical parameters
-  water quality, algae spotter
-  air quality sensor, physical parameters

 water

 beach

 nature

 farm

 urban

results

# Tests at farmers in cooperation with KBF

de Tike

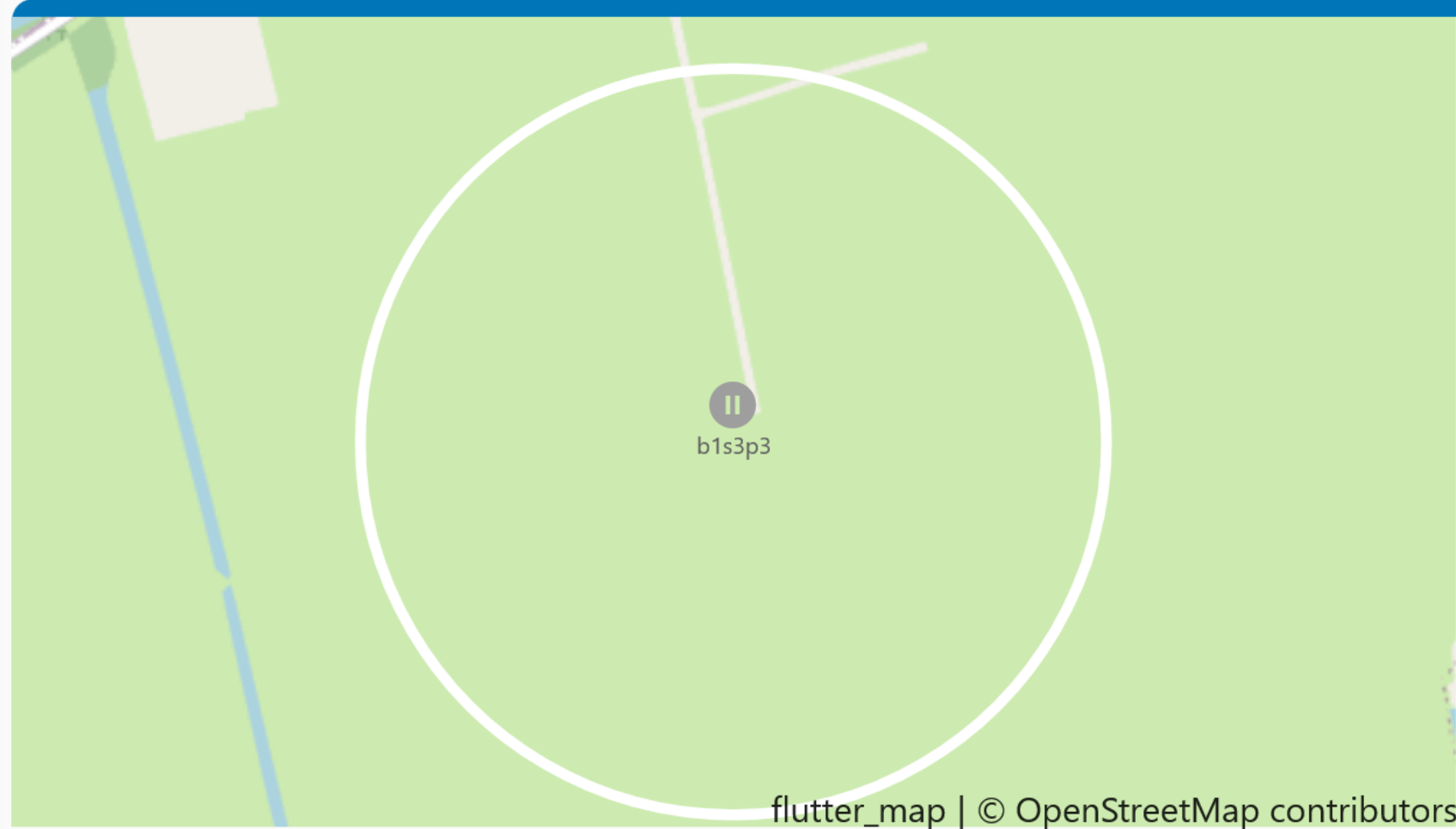
quality

sensors



data

prediction

latest sensor update: 20:47:20

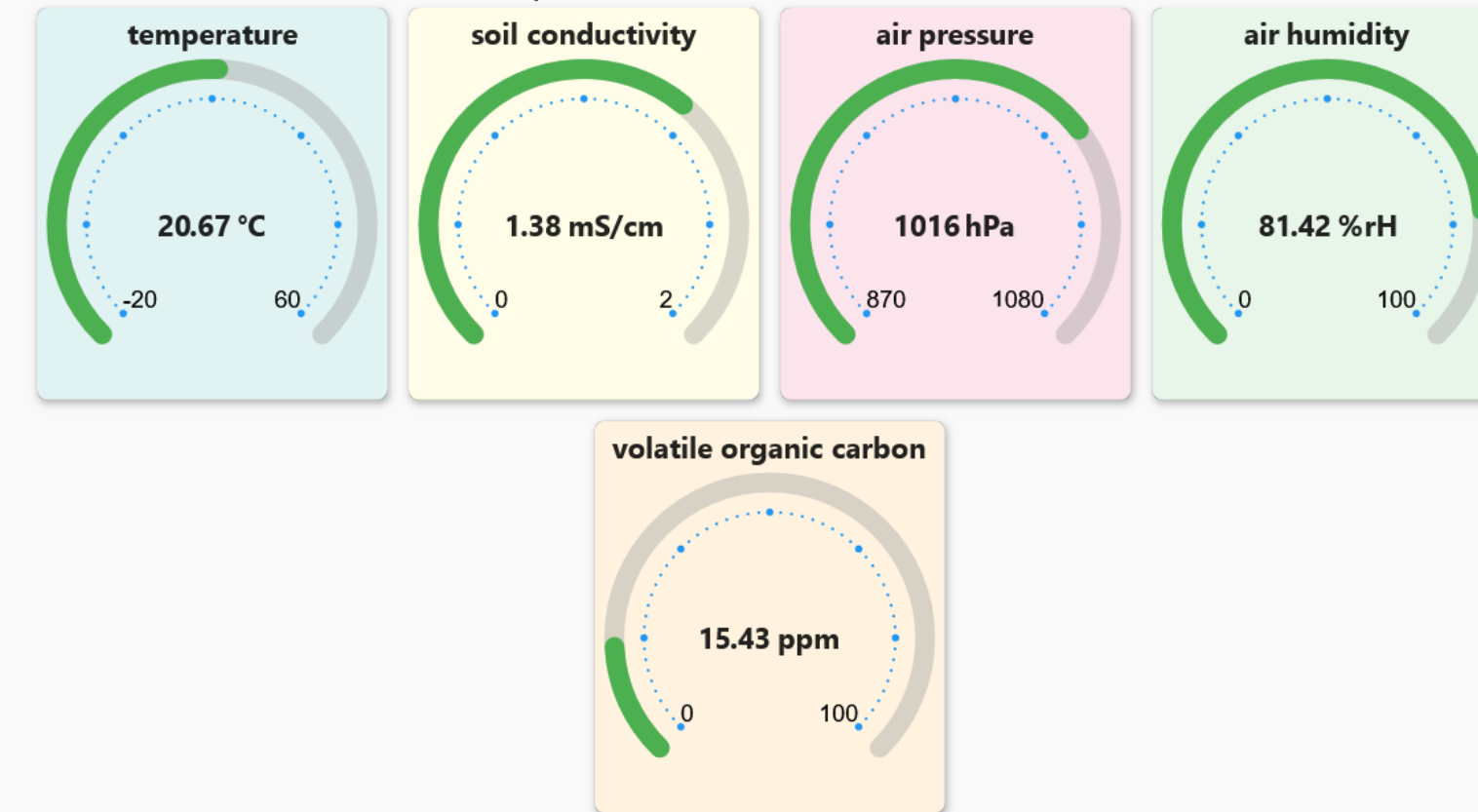


sensor list

-  soil quality: b1s3p3
-  water quality, physical parameters: b2s4f4

live sensor data

updated: 2023-09-12 20:44:14



# Tests at farmers in cooperation with KBF

de Tike

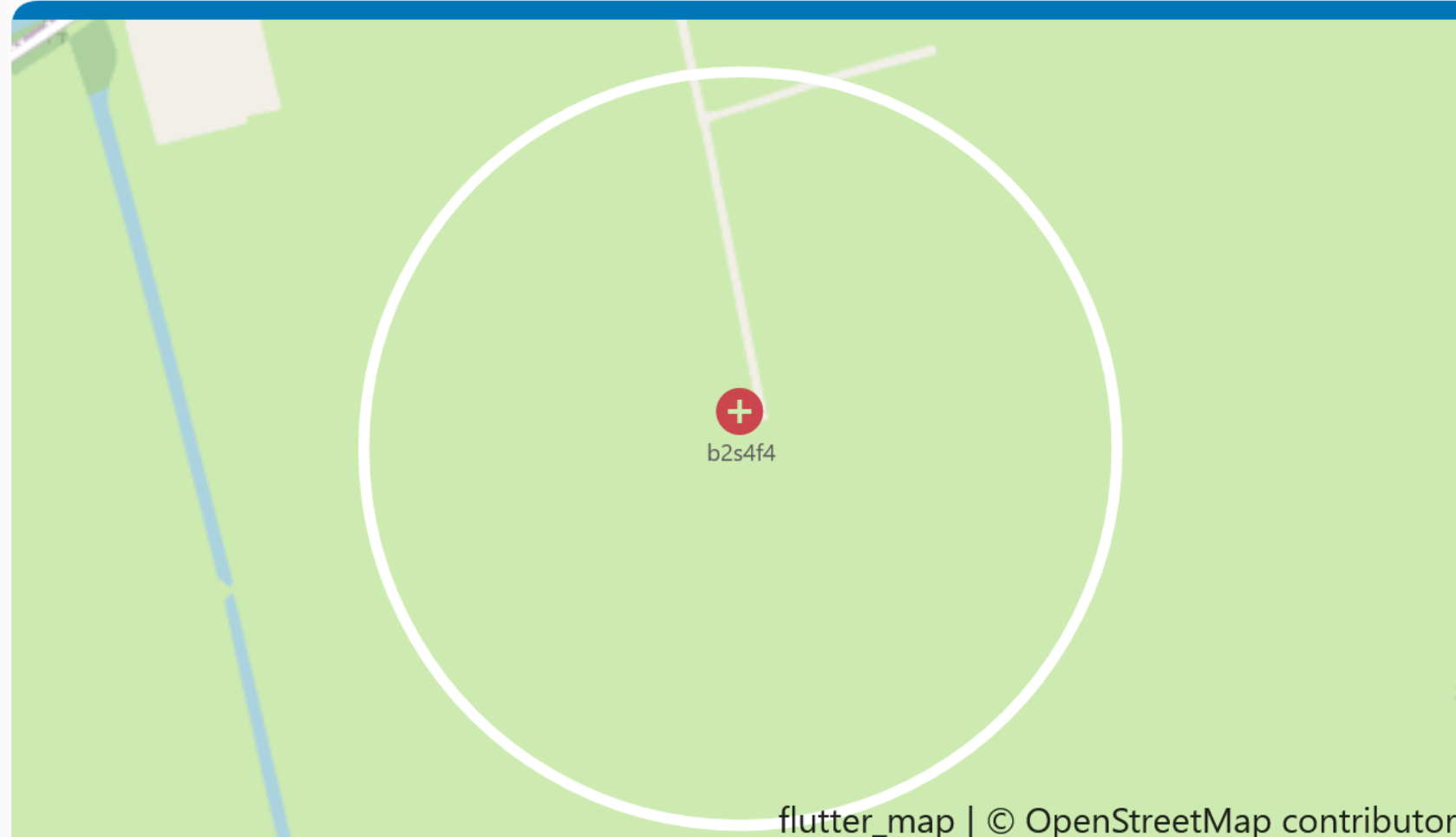
quality

sensors

data

prediction

latest sensor update: 20:47:20

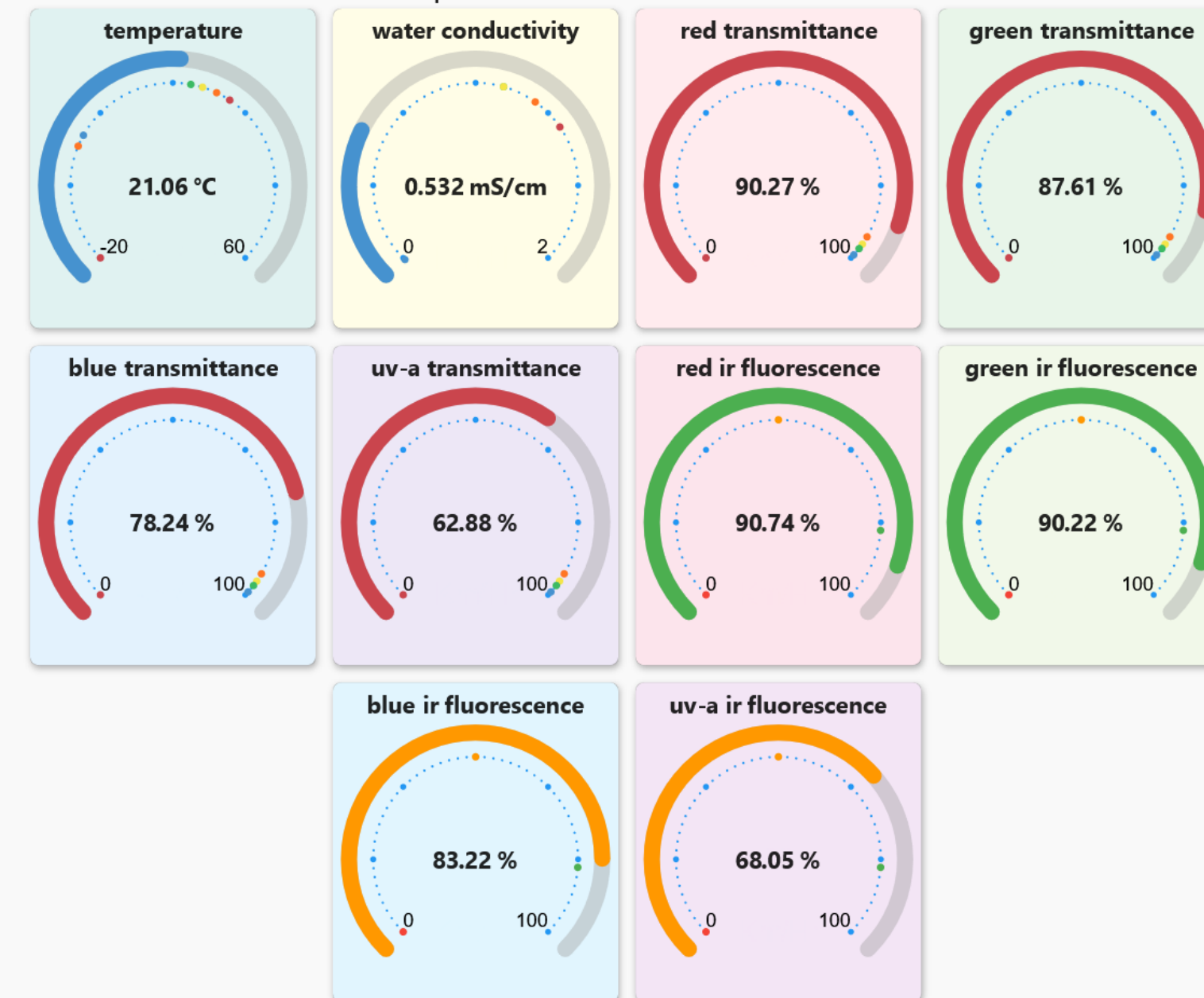


sensor list

- soil quality: b1s3p3
- water quality, physical parameters: b2s4f4

live sensor data

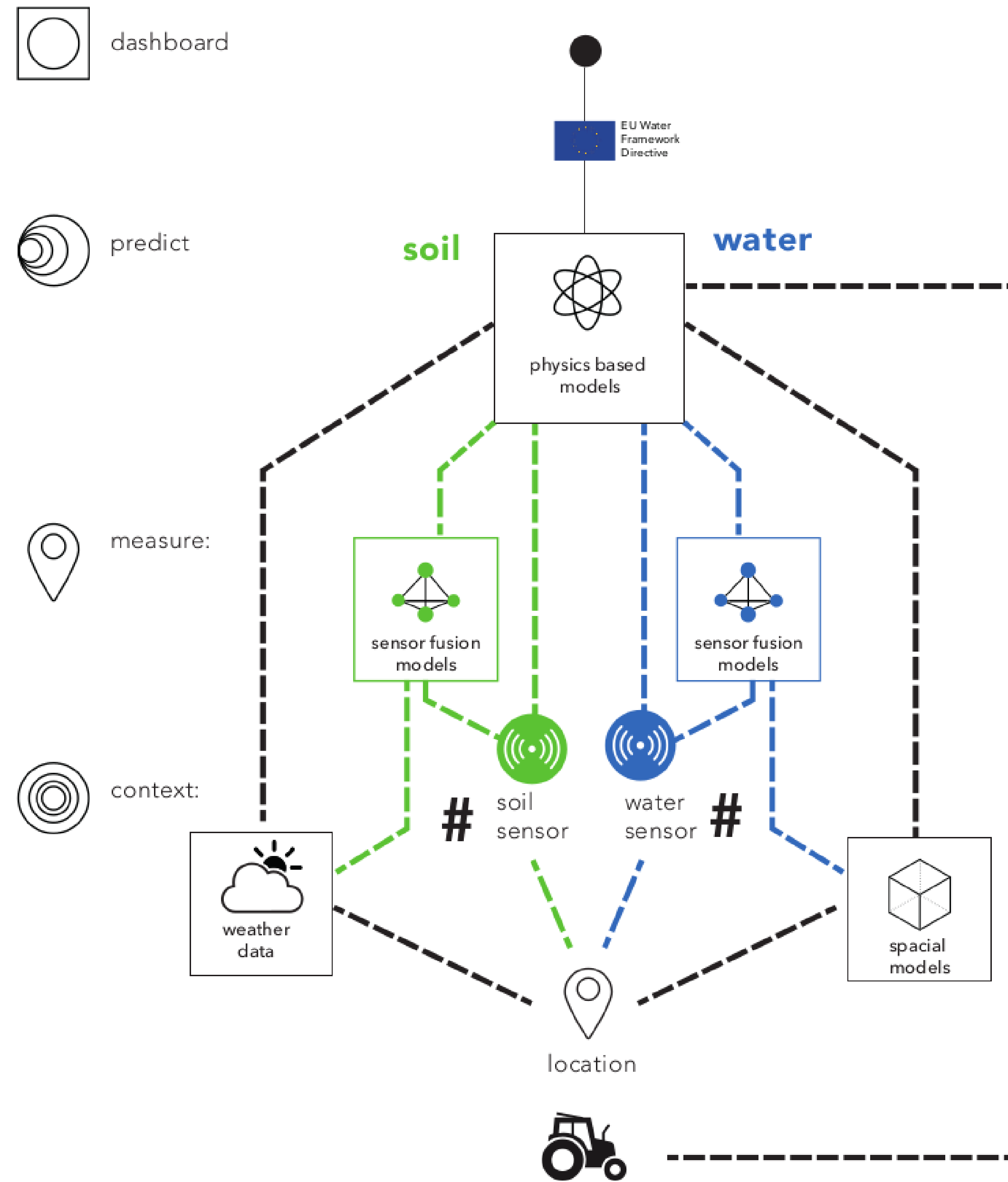
updated: 2023-09-12 20:47:20



# Surface water & soil quality are interrelated

- Physics models, open data, affordable sensors and sensor data fusion will help us predict and improve surface water and soil quality, especially for small water bodies.
- Predicting surface water quality requires the monitoring of soil quality.
- Improving soil quality will result in better surface water quality and drought resilience.

back  
up



Model  
framework

aqa.earth