



Rijksinstituut voor Volksgezondheid
en Milieu

*Ministerie van Volksgezondheid,
Welzijn en Sport*

WaterSNIP

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WaterSNIP | 21-20-2020





Outline

- Introduction WaterSNIP
- Example 1: Nitrate sensors in the Meuse river
- Example 2: Measuring water quality with EC sensors
- Example 3: [Samenmeten.RIVM.nl/dataportaal/](https://www.samenmeten.nl/dataportaal/)





RIVM: Public Health and Environment





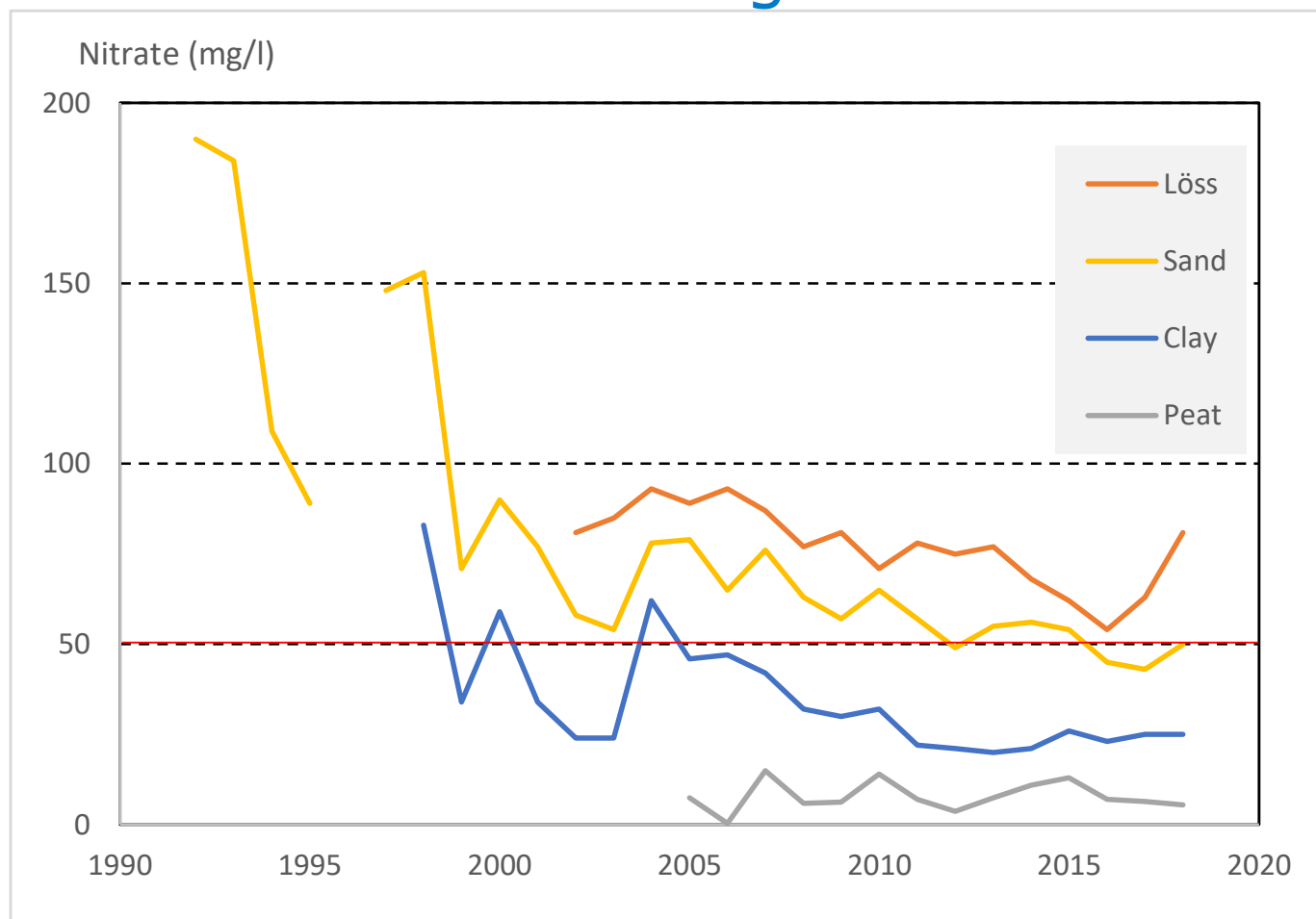
Minerals Policy Monitoring Programme (LMM)

- Water quality on 450 farms
from 1992
- 16 samples on each farm
- Most important: P and N.
- Testing the effectiveness of
minerals policy





Trend: Nitrate leaching





WaterSNIP goals:

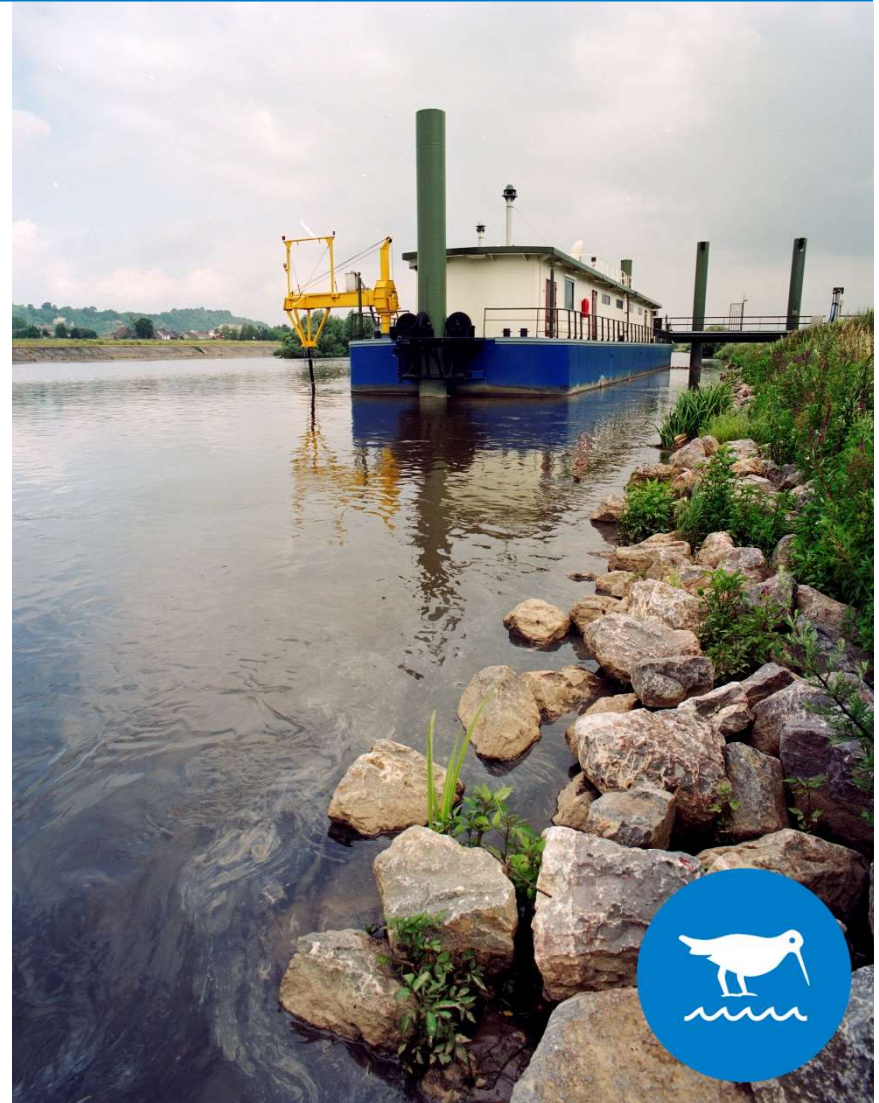
- Testing sensors: exploring a new method
- Measuring together in Participants Group





Example 1: Nitrate sensors

- RWS at Eijsden in river Meuse
- Testing 8 nitrate sensors
- 2 months
- Commercial and developers
- Learning and enjoying!





Method

- Take water samples 3 times a week
- Nitrate sensor every 15 minutes
- Test the sensor on:
 - Accuracy (3 times a week)
 - Stability
 - Drift
 - Sensitivity
 - Influence of other ions





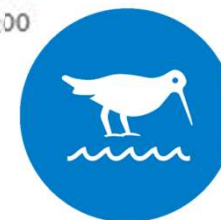
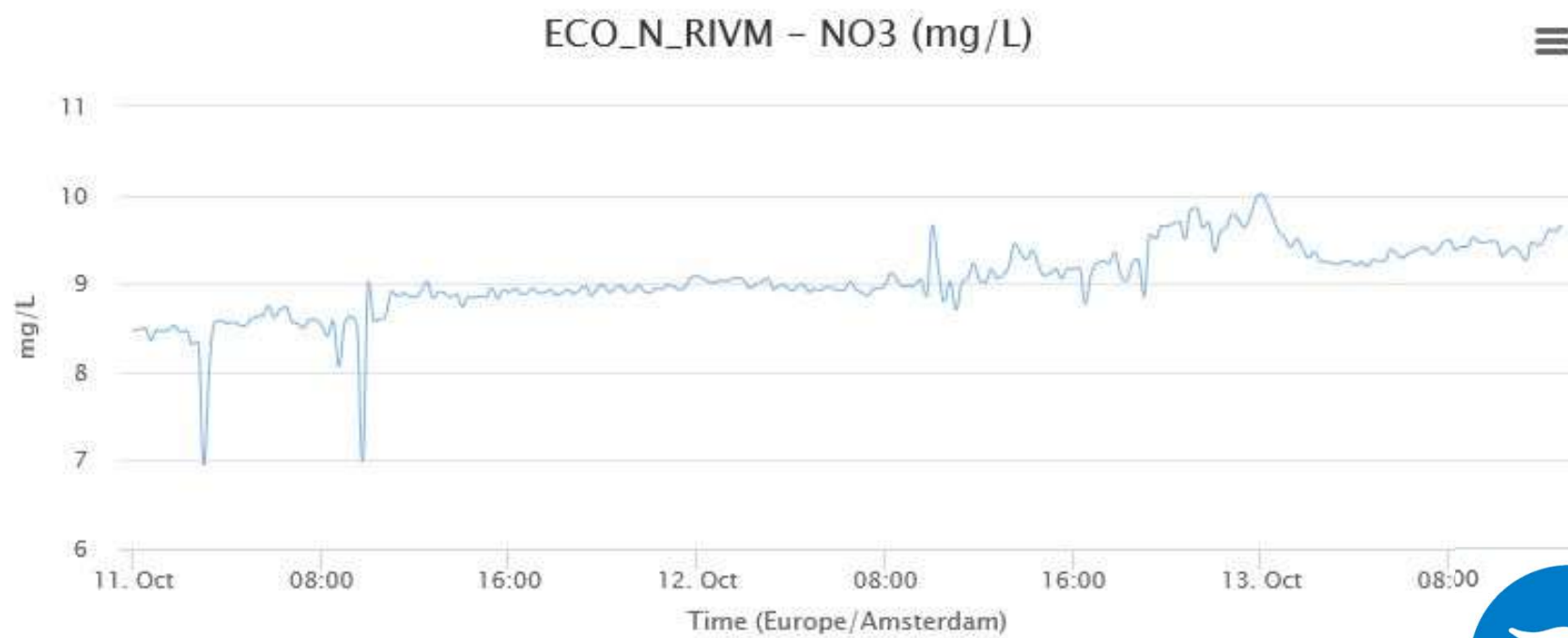
5 sensors on a row outside





3 sensors inside







Example #2: EC-sensors and Nitrate App

Water sensors on farms:

- Small (not much water)
- Cheap
- Low power consumption
- Resistant to frost and drought.





Koeien en Kansen Farms

- 16 dairy farms
- History of water quality
- Farmers work together with research
- Interested in technology





EC-sensor on K&K-Farms



Etten-Leur



Bedum





EC-sensor on K&K-Farms



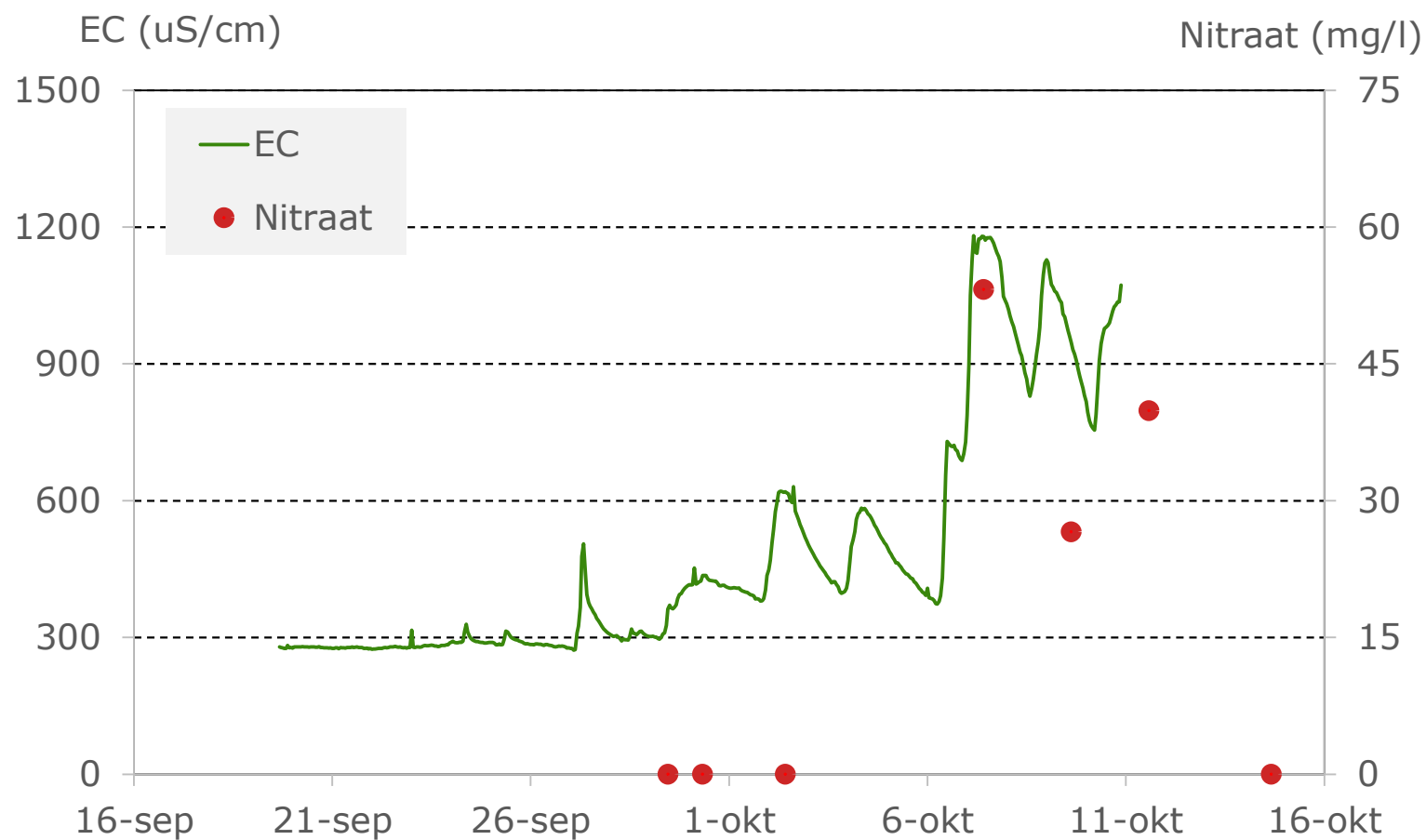
Nieuweroord

Zeewolde





Example of EC and nitrate app





Example #3: Samen meten Data portal

- <https://sensors.rivm.nl/>
- Started with air quality
- Sensor measurements of citizens and projects
- Open data
- Test with water quality

Questions:

- What could be done with the data?
- Which parameters are missing?
- How can we add more value to EC-sensors?





Thank you for your attention!

