



Cobalt
Water
GLOBAL

N₂ORisk Decision Support System (DSS)

www.cobaltwater-global.com

info@cobaltwater-global.com

New York, USA | Ghent, Belgium

The problem

Water utilities across the globe are racing to meet net zero emissions. Some by as early as 2030. To reach this goal, water utilities must address nitrous oxide (N₂O), which is 300 times more detrimental to our climate than CO₂. It is emitted from water resource recovery facilities (WRRFs) when the treatment process is not properly optimized. Given its potency, N₂O can easily make up most of a WRRF's carbon footprint.



N₂O not only contributes to global warming, but it is also an ozone depleter. Therefore, offsetting N₂O emissions may cancel out their global warming effect, but it does not avoid ozone depletion.

Our solution

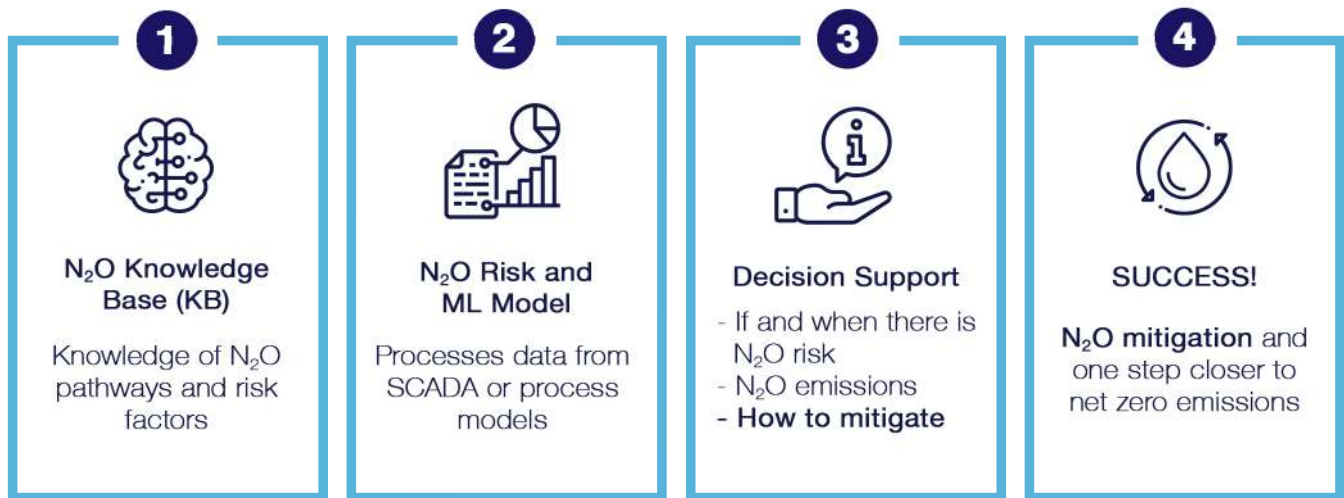
Unlike the less sustainable solutions, we actually reduce and mitigate N₂O. The ***N₂ORisk Decision Support System (DSS)*** uses AI to combine expert knowledge on N₂O and machine learning (ML) to quickly quantify emissions, optimize the treatment process, and eliminate N₂O.

By focusing on and actually reducing N₂O, water utilities can more effectively reduce their carbon footprint. **Up to a 70% reduction** in total WRRF GHG emissions have been achieved with the *N₂ORisk DSS* in less than 2 months. Our AI technology is an efficient, effective and affordable solution for water utilities.

Smarter and more sustainable wastewater treatment

- Improved process performance and monitoring
- Easy and accurate GHG Reporting
- GHG/Energy/Cost optimization powered by Machine Learning

How it works



Products / Support Services

- *N₂ORisk DSS* Subscription
- WRRF N₂O Risk Assessment
- Setting up N₂O measurements
- N₂O mitigation strategy development/testing
- AI and mathematical modelling of WRRF N₂O emissions
- Long-term N₂O mitigation and monitoring

Success Story

The Eindhoven WRRF, owned and operated by Waterboard De Dommel - our first successful case.

Using the outputs of *N₂ORisk DSS*, the strategies tested resulted in a 40% reduction of Scope 1 and Scope 2 emissions, there was no net increase in energy consumption, and nitrification improved.

