Time-series Intelligence for Sustainable Water and Wastewater Treatment

In water and wastewater treatment the demand is high to meet sustainability goals. The industry is facing increasingly stringent regulations to comply with water use and quality requirements, while at the same time needing to reduce energy consumption and (carbon) emissions; decarbonization/net-zero. On the other hand the industry is looking to improve overall operational efficiency and increase reliability of critical (aging) infrastructure.

With a continuously increasing amount of (sensor generated) data and a few operational experts (such as engineers) on a treatment plant it is hard to find the time to analyze the data to improve operational performance. Those operational experts may also have limited data science skills which makes it hard to keep up with the digitalization rat race. People may feel left behind and the organization can fall behind. Therefor new advanced analytics tools are needed that put the power of analytics in the hands of the operational experts, without the need to become a data scientist first.

TRENDMINER SOLUTION

- TrendMiner is a high-performance analytics platform for process and asset data.
- Operators/engineers/managers are empowered to utilize the full potential of a water treatment plant's data. They can analyze, monitor, predict, contextualize and visualize their process data in a fast, user-friendly, and self-service way.
- TrendMiner provides real-time and interactive insights into treatment processes and asset performance.
- Users can make data-driven decisions and improve operations.
- Cross-site teams can collaborate, learn and improve the overall performance of all treatment facilities.
- Operators/engineers/managers can use their knowledge and expertise to advance their plants along their digitalization journey
- By improving operational, energy, workforce efficiency and environmental compliance TrendMiner can help to directly contribute to a company's sustainability (ESG) goals.

BENEFITS

TrendMiner provides immediate, actionable insights into data to increase efficiency, secure reliability, provide transparency, save time, cut expenses, reduce potential environmental harms, and contribute to overall plant sustainability.

REAL-TIME MONITORING PER EQUIPMENT/PROCESS/PLANT
- Minimize critical equipment downtime and maximizing reliability with continuous condition-based monitoring
- Predictive maintenance of pumps, compressors, aeration elements or other equipment to increase cost, energy and workforce efficiency

PRODUCTION COCKPIT FOR DAILY DASHBOARDING
- Explore, detect and discover with actionable dashboards to improve energy management at a treatment facility
- KPIs monitoring dashboard to follow up on treatment plant performance

TROUBLESHOOTING
- Understand and remove treatment process bottlenecks and diagnose downtime events of pumps, compressors, filters or other equipment
- Identify energy saving potential by comparing operating ranges
- Perform root cause analyses to improve overall performance of treatment plant

REPORTING
- Report transparently on environmental compliance with descriptive statistics such as daily/monthly/yearly amounts/averages of certain parameters
- Report on asset utilization, capacity and efficiency
- Impact assessment report of process variables on process/plant KPIs
- Simple export and import of data

GET INSPIRED

Inspirational use cases

- **Use case 1:**
  Reduce Energy Consumption at Reverse Osmosis Plant
- **Use case 2:**
  Finding the Right Time to Clean Aeration Elements
- **Use case 3:**
  Reducing Pump Shutdowns with Live Monitoring and Alerts
- **Use case 4:**
  Creating an Energy Management Dashboard
- **Use case 5:**
  Correlating Wastewater Quality with Live Process Data
- **Use case 6:**
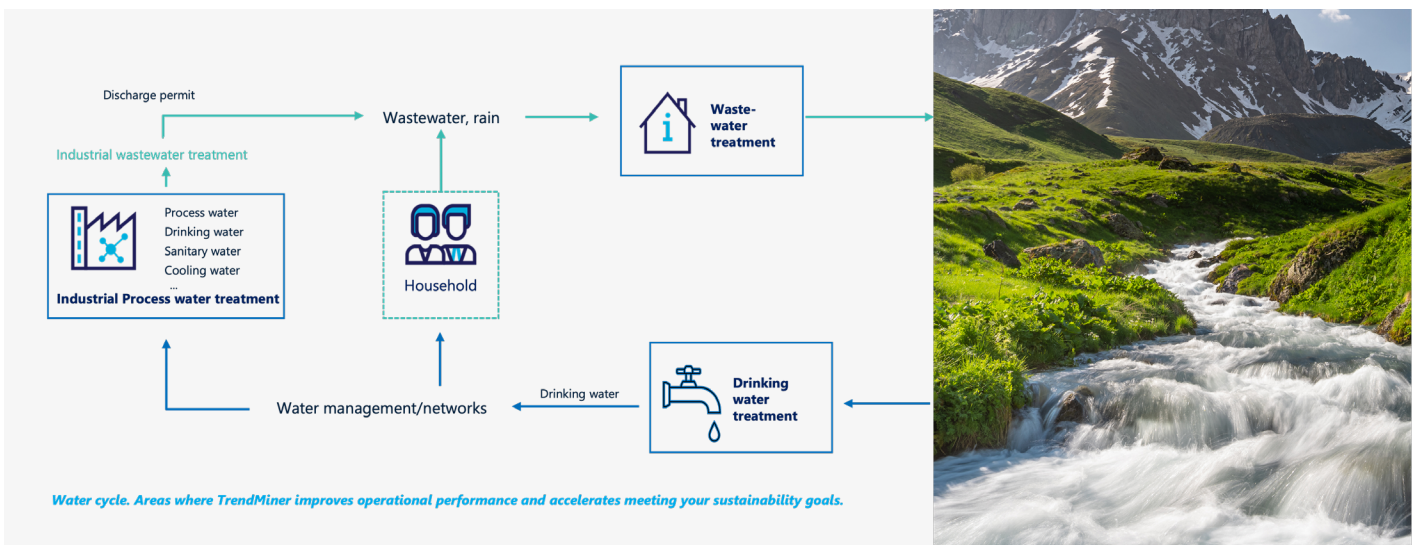 Detecting and Reacting to Pipe Network Anomalies

Blog posts

- **Blog 1:**
  Could Sustainable Water Clues Be Hiding in Your Data?
- **Blog 2:**
  Two Big Trends in Water & Wastewater Treatment for 2022
- **Blog 3:**
  [Webinar Recap] Advanced Analytics for Water & Wastewater Treatment
- **Blog 4:**
  How the Water & Wastewater Industry Can Reduce Energy Consumption

Also see other posts here

Download

- **White paper:**
  Advanced Analytics for the Water & Wastewater Industry
- **Video's for W&WW:**
  all webinars for W&WW
- **Video (WOD):**
  Advanced Analytics for Water & Wastewater Treatment
- **Video interview:**
  Analytics trends in industrial water treatment

Water cycle. Areas where TrendMiner improves operational performance and accelerates meeting your sustainability goals.

IN THE MEDIA

- **Read me:** Achieving Water Sustainability Goals With Advanced Analytics
- **Read me:** Facing Industrial Water Challenges Head-On with Advanced Analytics
- **Read me:** How the Process Industry Can Use Advanced Analytics to Manage Its Water & Energy Challenges
- **Read me:** Water 4.0: Reducing Energy Consumption with Advanced Data Analytics.

DISCUSS WHAT TRENDMINER CAN DO FOR YOUR COMPANY

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