



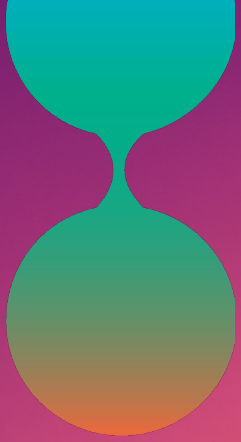
Stephanie Raoul

**Reducing Emissions through
Gas Turbine Optimization**

SeeQ®

connect





Stéphanie Raoul

Gas Turbine Optimization



connect

About us



Headquartered in Oslo, Norway



2500 employees



Explores and produces oil and gas on the Norwegian continental shelf



Operator of 6 large oil and gas offshore fields / ~400 000 barrels per day

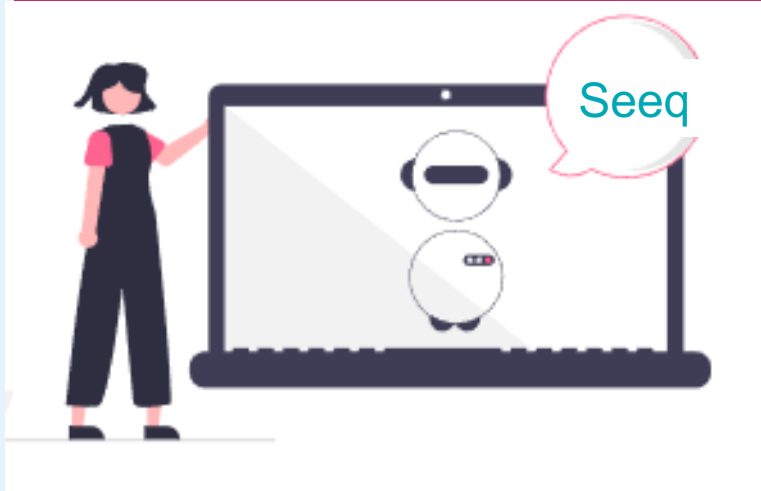


A global leader in low Greenhouse Gas emissions

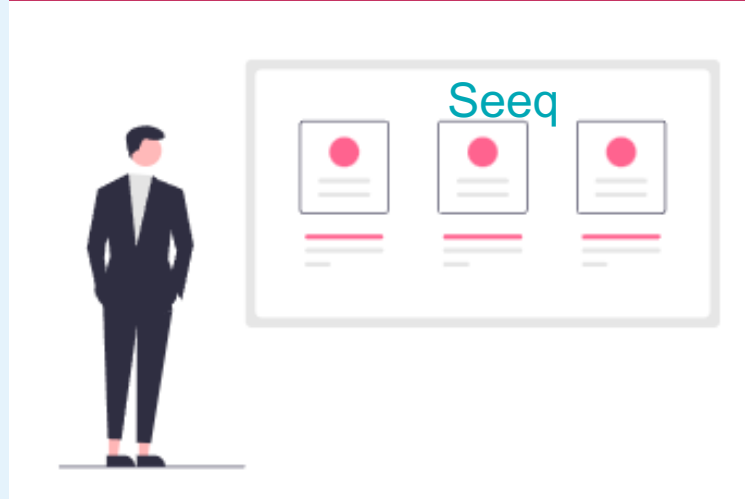


Seeq organization

System Owner



Ambassador



Super User







Support Service

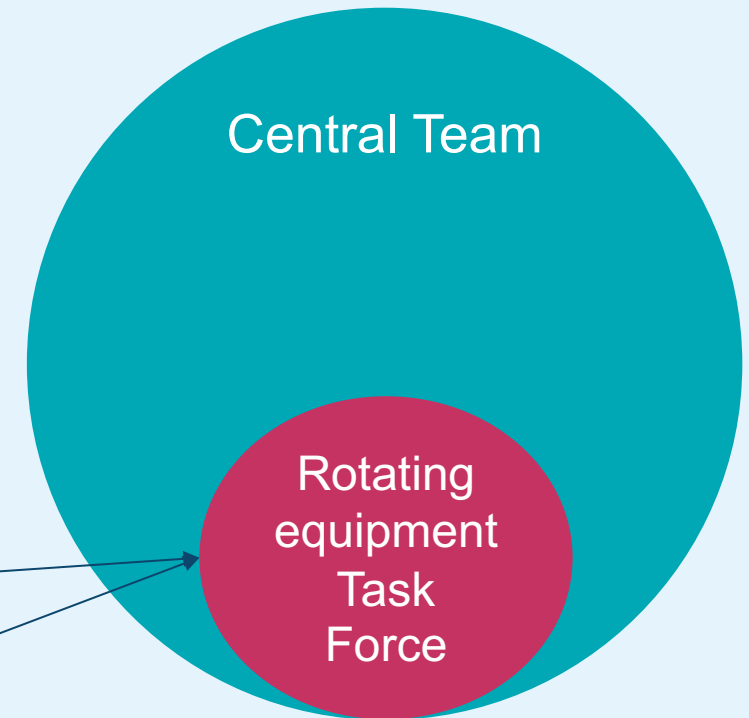
Knowledge



Operations Business Unit – Center of Excellence



-  Central Team
-  Work across all the offshore assets
-  One expert for each discipline (~ 10 people)
-  2 Data Scientists
-  Lead Data Scientist
-  4 Advisors

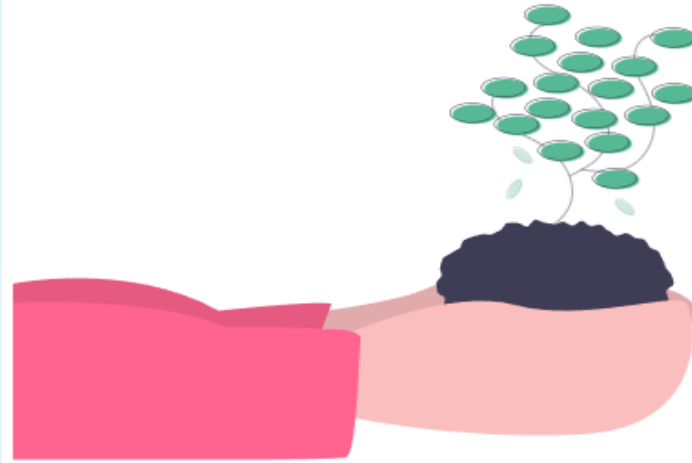


Goals

Enhance Equipment Availability



Optimize Equipment Efficiency



Root Cause Analysis



Optimize Equipment Efficiency

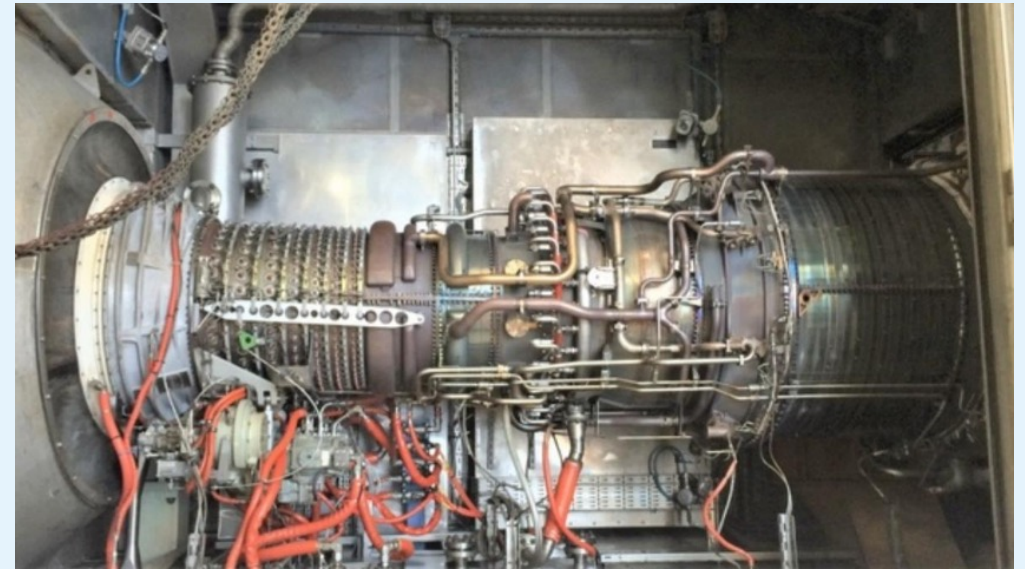
Monitoring Solutions

Tailored data models

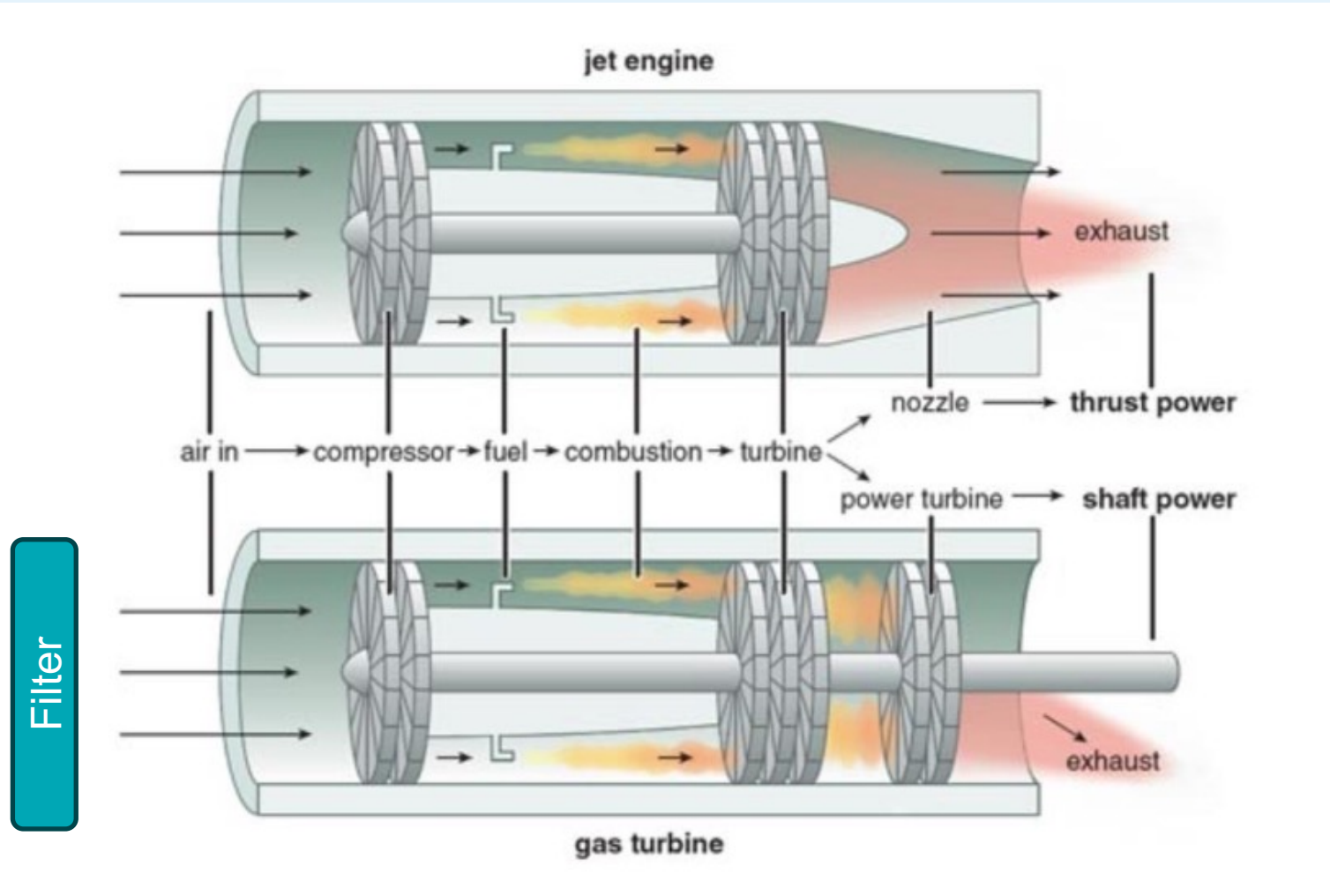
3rd-party data models

Alerts management system

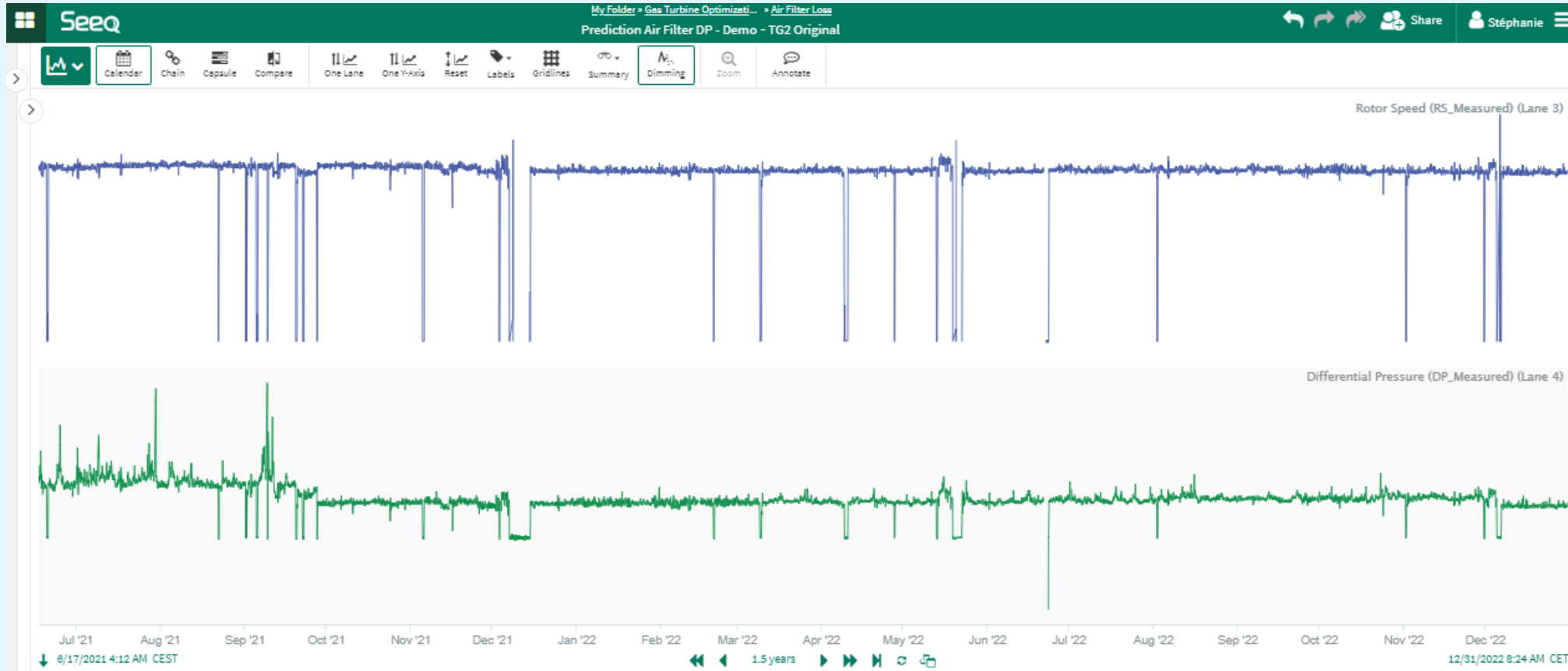
Diagnostic dashboards



Gas Turbine



Data

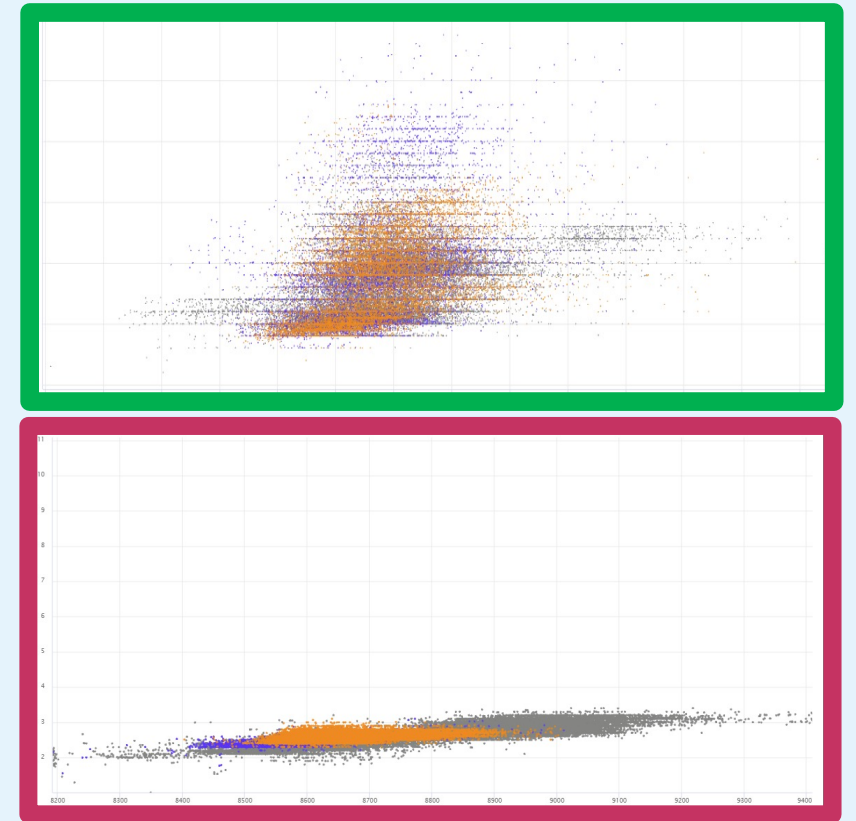
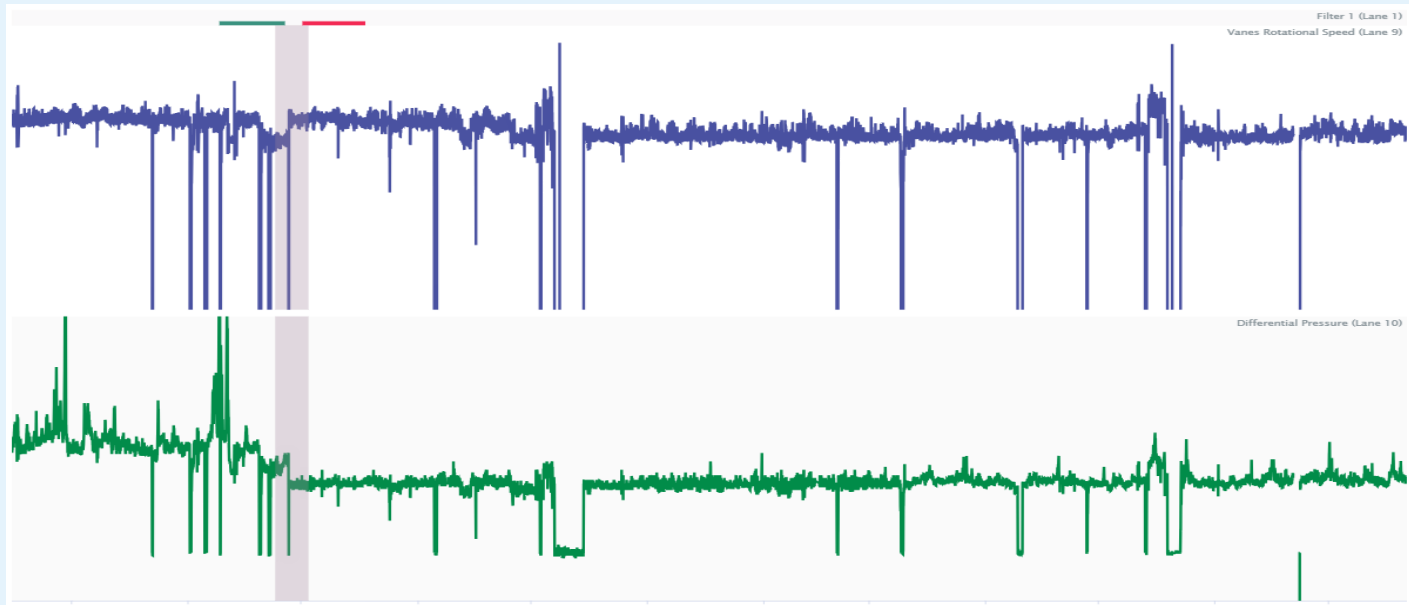


Rotational
Speed =
Load

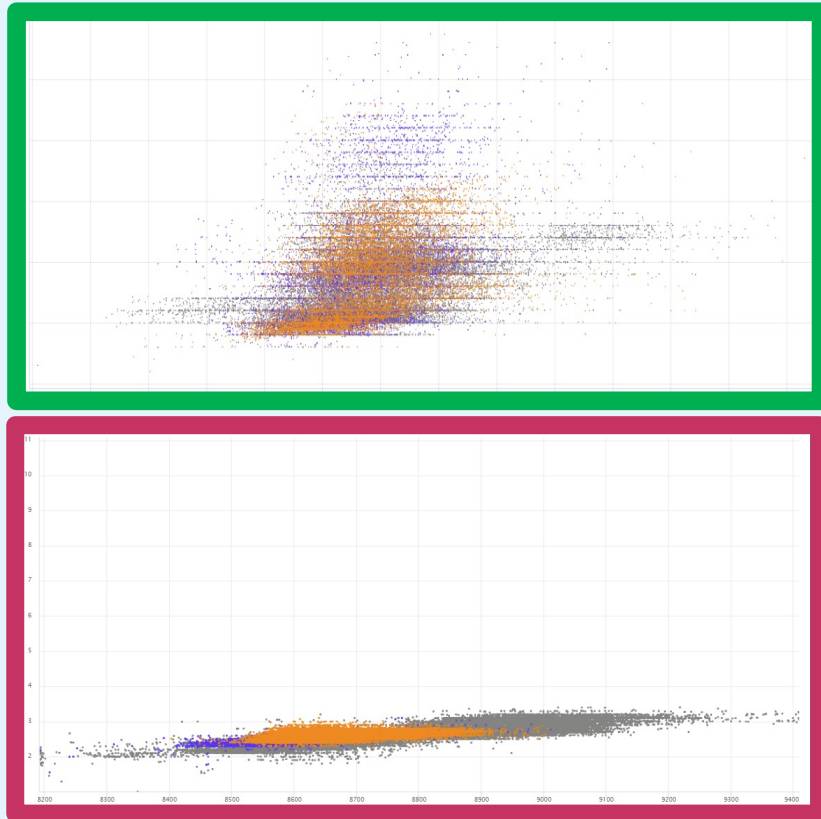
DP =
Resistance



Tackle the challenge with Seeq



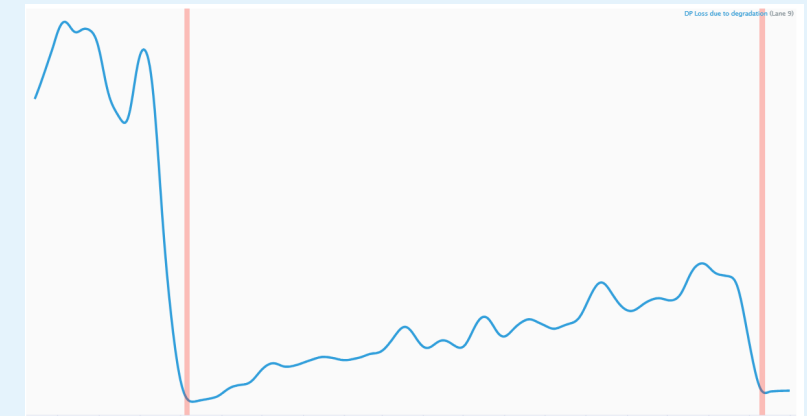
Tackle the challenge with Seeq



Prediction
Expected DP



DP due to degradation
Measured DP – Expected DP



Filter
change

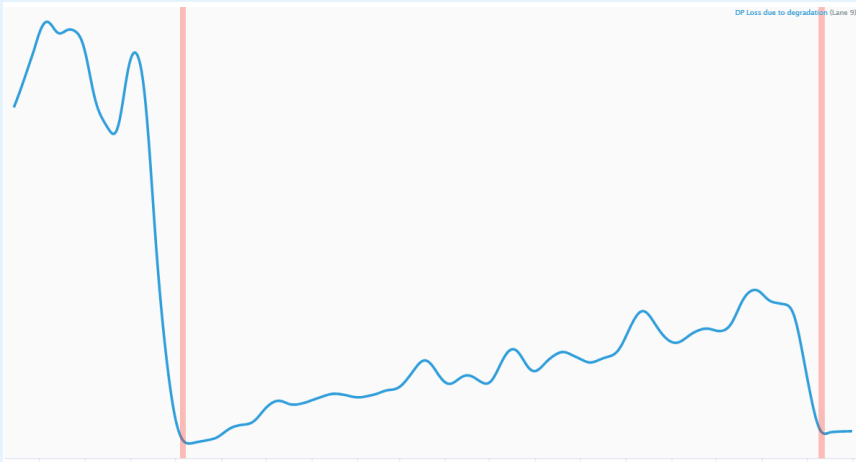
Filter
change



Tackle the challenge with Seeq

DP due to degradation

Measured DP – Expected DP



Filter
change

Filter
change

Formula
Thermodynamics

Cost

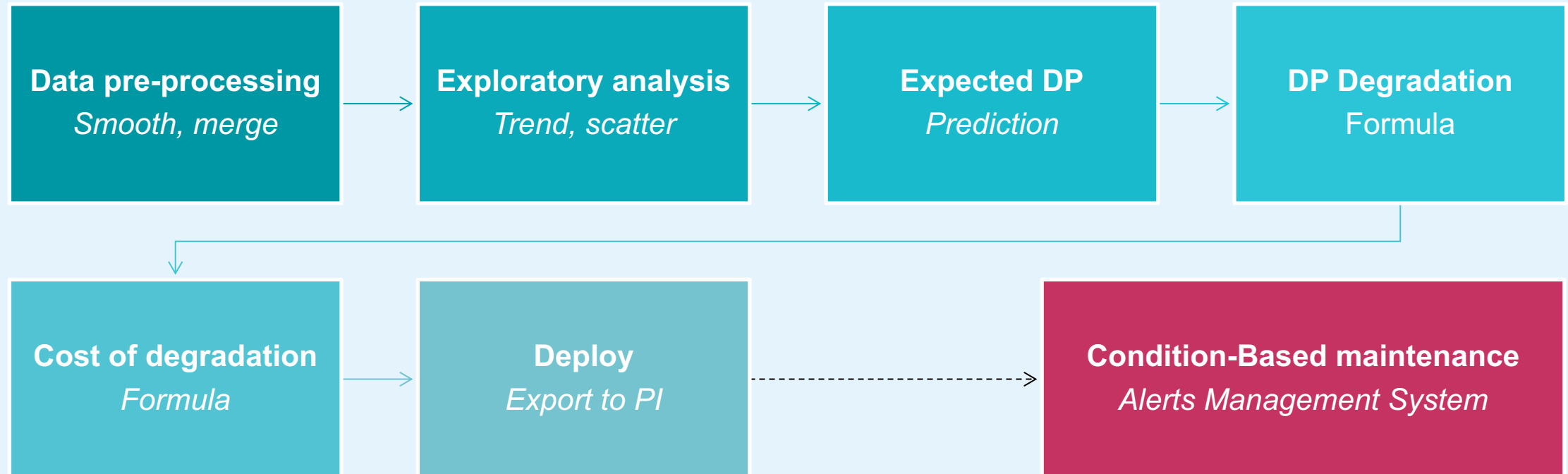
Co2 Emission



Filter
change

Filter
change

Seeq functionalities





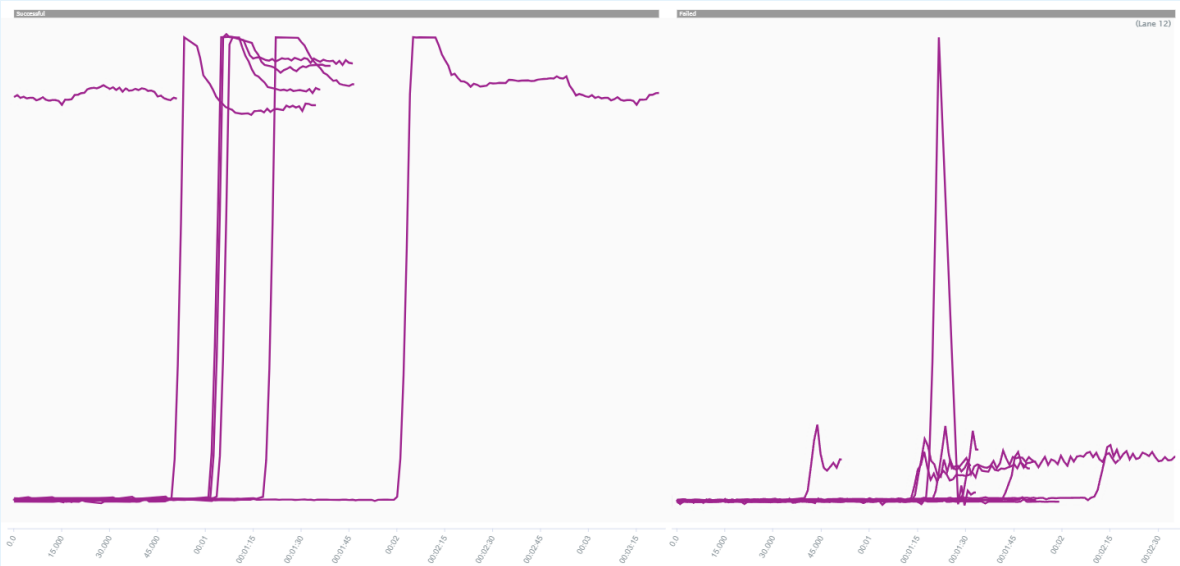
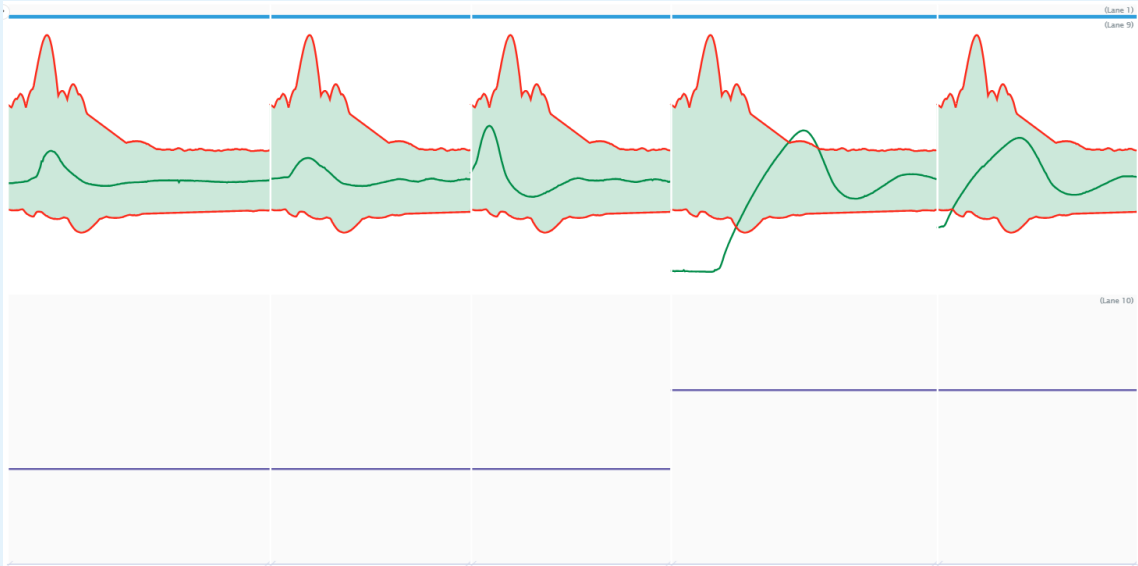
Reduce CO₂ emission of **10 000 tons / year**

&

Transition from Calendar-based maintenance
to Condition-based maintenance for Gas
Turbines



What's next & other Seeq highlights



	Dec 1, 2023 12:00 AM - Jan 1, 2024 12:00 AM	Jan 1, 2024 12:00 AM - Feb 1, 2024 12:00 AM	Feb 1, 2024 12:00 AM - Mar 1, 2024 12:00 AM	Mar 1, 2024 12:00 AM - Apr 1, 2024 12:00 AM
50PS0001A	11.078 L	0.2208 L	7.9777 L	0.8509 L
50PS0001B	1.2703 L	20.563 L	0.9489 L	13.526 L
50PS0002	4.9969 L	1.2943 L	1.08 L	1.403 L
50PS0003-M01-H01	3.2894 L	2.7921 L	3.8325 L	3.4192 L
71PS0001A-B01-H01	3.1054 L	3.2572 L	1.92 L	2.091 L
71PS0001B-B01-H01	2.9657 L	2.0182 L	1.8555 L	1.4808 L
71PS0001C-B01-H01	2.6041 L	1.9022 L	0.9181 L	1.73 L



Acknowledgement



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Seeq

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Topher Smith

&

Support Team





Thank You



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