

# ZEELAND REFINERY CASE



# EARLY WARNING DASHBOARD AND PREDICTIVE HEALTH MONITORING ZEELAND REFINERY

axians



## USE CASE

Is it possible to optimize maintenance and replacement of valves within the CCR equipment?

## PRACTICAL SOLUTION

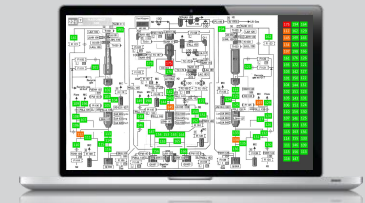
Dashboard showing valves that requires most urgent attention based on predictive models and pattern recognition.

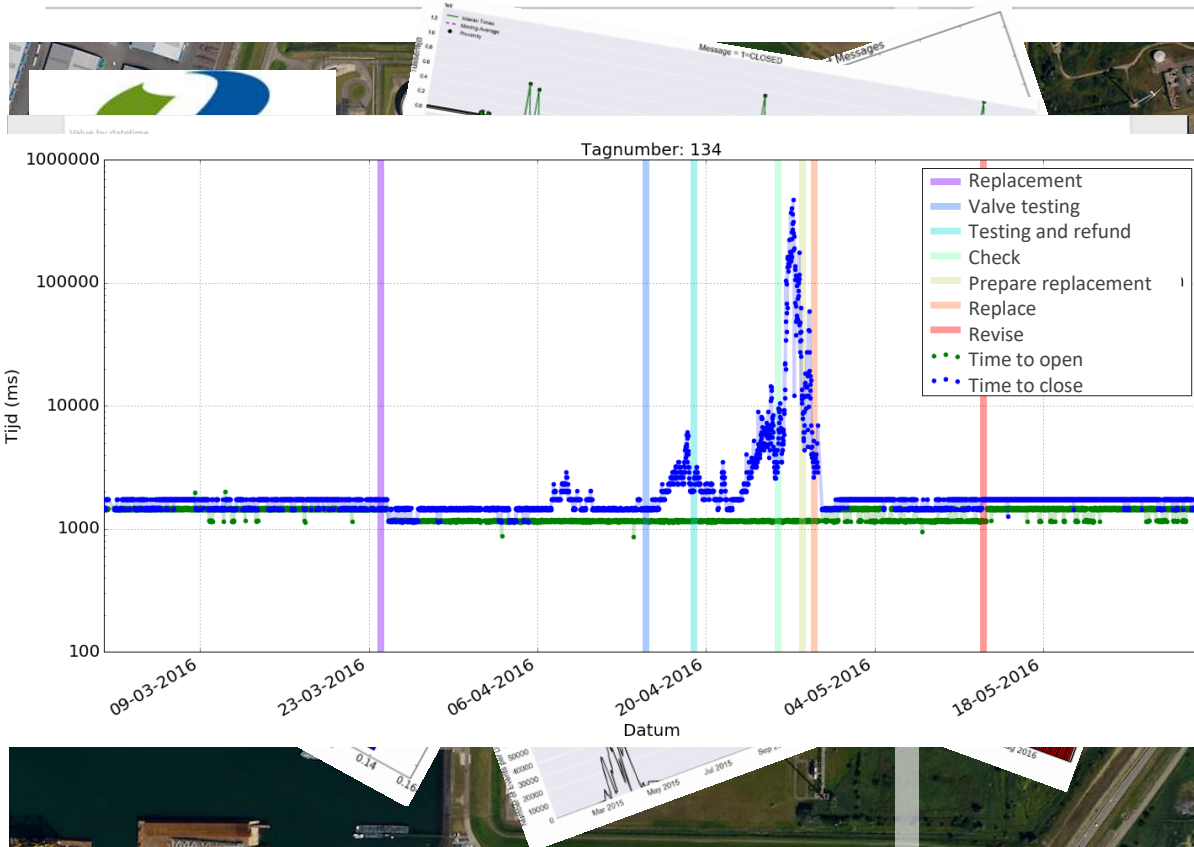
## ADDED VALUE

Less defecting and leaking valves resulting in higher uptime of CCR equipment.  
Better product quality resulting in higher yields.

## ROLE AXIANS

Advanced data analytics based on valves data.  
Extending valves data resulting in delivery of highly reliable predictive models.





## OBJECTIVE

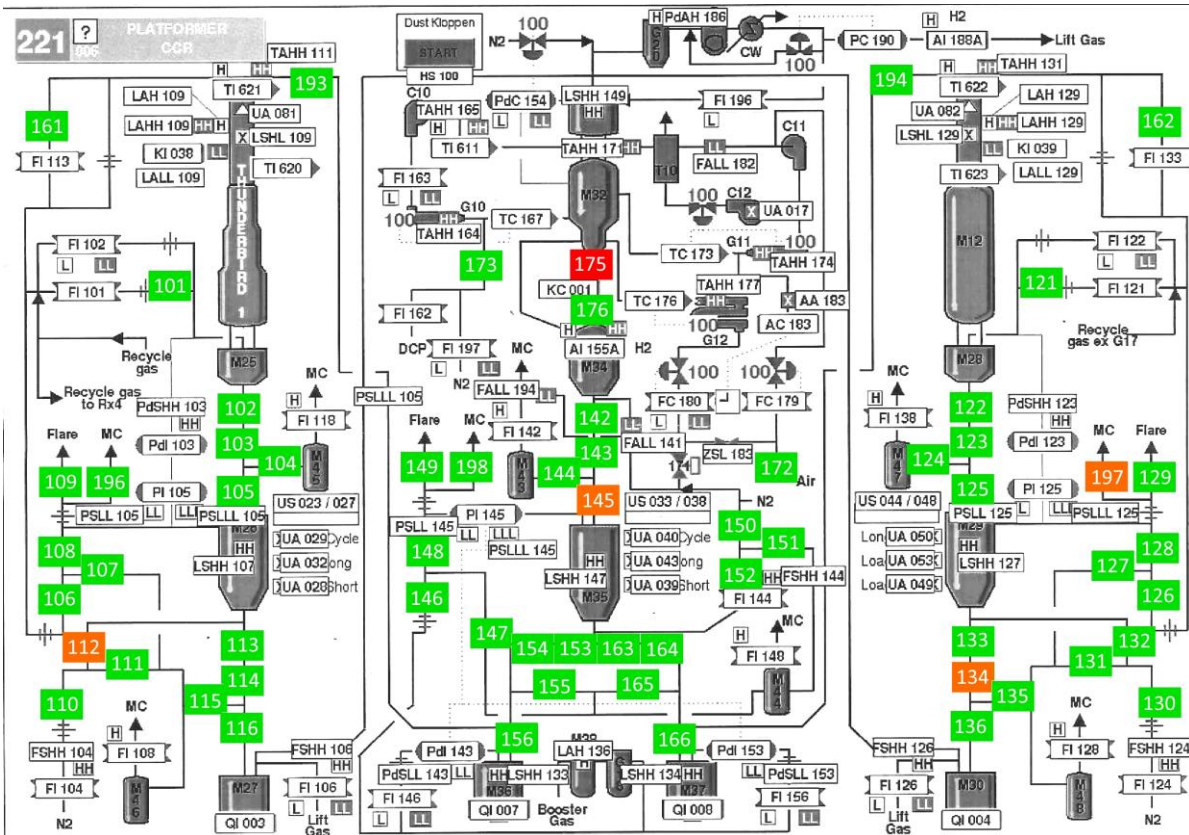
Cost reduction and improve efficiency by predicting when valves are going to fail

## DATA

PLC process data  
Maintenance data

## RESULTS

Insight in behavior of valve and confirmation that it is possible to predict when valve is going to fail



175	194	164
112	162	129
145	149	165
134	173	128
197	198	166
161	176	126
193	172	121
103	142	127
101	150	122
104	144	132
102	151	123
105	143	131
106	152	124
110	154	130
107	148	125
108	153	135
115	163	136
114	155	133
111	146	109
115	156	113
116	147	

Behind these traffic lights there are predictive models.

Valve 175 requires most urgent attention. It is the valve that is **most likely** going to fail.