

SIEMENS ADVANTA

# Grid maintenance optimization

Kärnten Netz GmbH



# Grid maintenance optimization



## KNG - Kärnten Netz GmbH

Distribution grid operator for electricity and natural gas in Carinthia, Austria



## CLIENT CHALLENGES

Improve efficiency and lower efforts for maintenance workload with constrained budgets



## OUR SOLUTION

Built an application for outage prediction and maintenance simulations



## CLIENT BENEFITS

Optimized asset management prioritizes maintenance on assets with highest failure probability

**>90%**  
**Prediction accuracy**  
**for failures at**  
**named assets**



Electricity & Gas



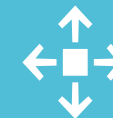
Carinthia, Austria



Leading electricity  
and gas distribution  
network operator in Carinthia



Annual turnover 1,3B



Grid covering 400.000  
customers, 18.000 km  
of power lines, 65.000  
poles, and 7.000  
transformers

# THE CUSTOMER'S CHALLENGE

Advancing sustainable energy system while coping with high maintenance efforts and constrained budgets

1

Increased grid complexity with growing amount of distributed energy sources

2

Outage risk due to environmental factors and higher stress on assets due to integration of fluctuating sources

3

Budget constraint, avoiding / delaying infrastructure replacements

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# OUR APPROACH

By identifying, integrating, enriching and interpreting data, we co-created a decision support system to predict future outages

1

Identification  
of influencing  
parameters and  
available data  
sources

2

Integration &  
enrichment of  
own data with  
available  
external data  
sources

3

Co-creation of  
outage  
prediction  
application  
based on AI &  
domain  
expertise



# THE IMPACT

Optimized asset management prioritizes maintenance on assets with highest failure probability

1

Optimized utilization of maintenance resources due to dynamic inspection schedules

2

Prediction accuracy for future failures at named assets >90%

3

Smart route optimization for workforce crew as spin-off for added value

>90%  
Prediction accuracy  
for failures at named assets



# Why is Siemens Advanta the best partner for this sort of project?

## Benefit from our deep **Domain Knowledge**

Siemens Advanta brings unparalleled operational technology (OT) experience in power utilities to the table, key to capture the essence of domain-specific challenges and work out effective solutions.

## Leverage unique **IT OT Integration Expertise**

Cross-functional, multi-disciplinary teams with IT, OT, and analytics skills allows for a lean setup to achieve big value with limited budgets.

## Profit from our powerful **Ecosystem**

Siemens Advanta agnostically integrates across various platforms, drawing on an extensive, global partner network to deliver tangible business outcomes for your projects.

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