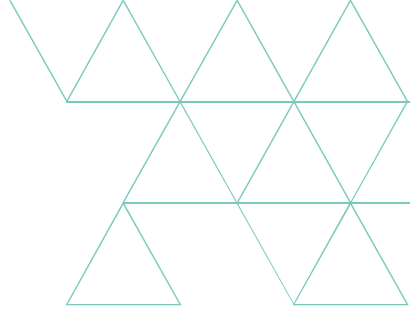


New utility applications on MindSphere

Maikel van Verseveld,
CEO, OMNETRIC Group

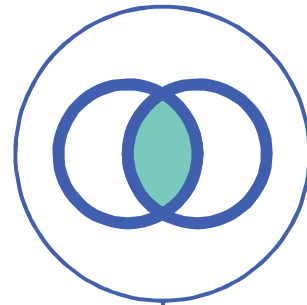
Since 2014, OMNETRIC Group helps energy providers capture the opportunities of digitalization in the grid



Our approach is to look at energy provider systems and data from the operations side of the challenge



100% dedication
to IT/OT



Best of two
worlds



Ready-made
solutions

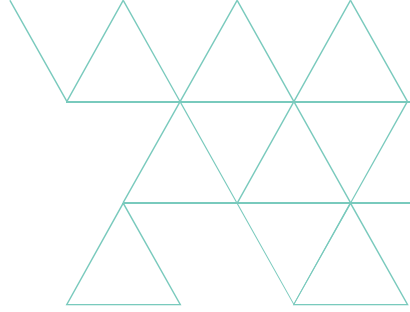


“Expert” culture

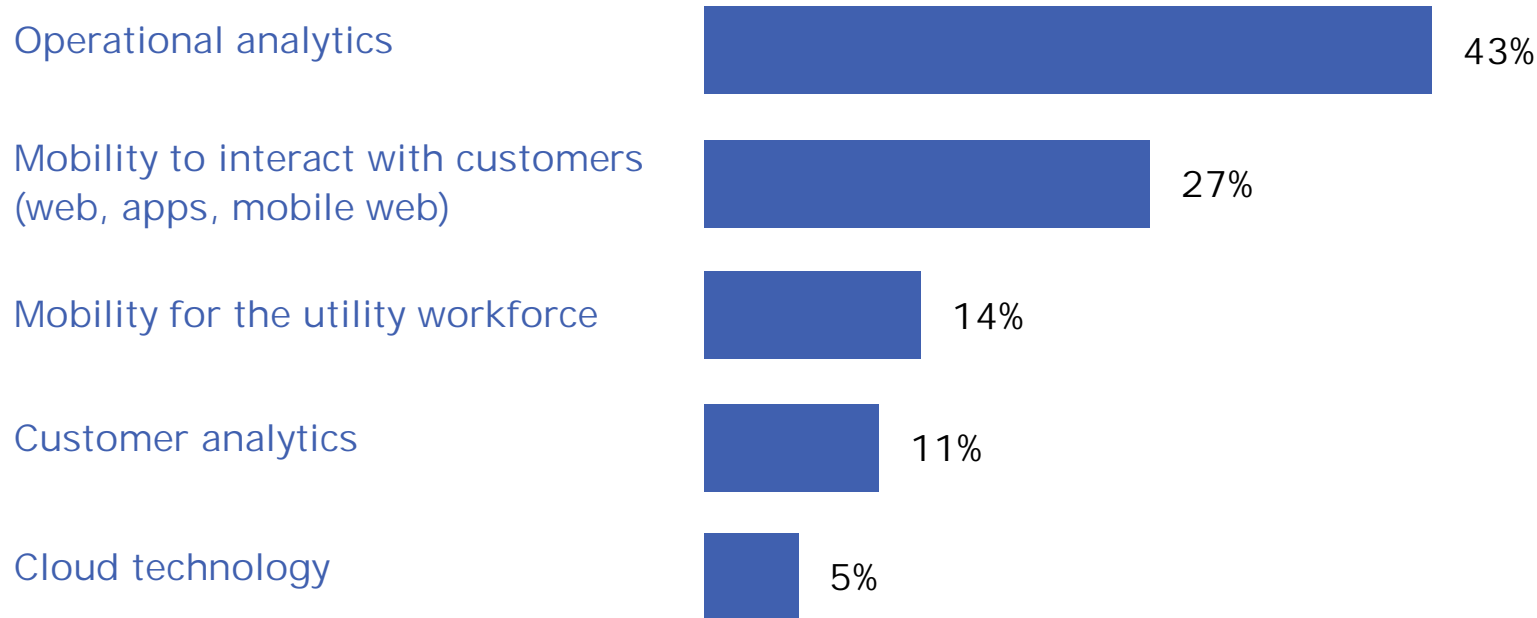
Digital grid = Data grid + electricity grid



“The world’s most valuable resource is no longer oil, but data”



Operational analytics will concentrate the highest share of investments within the next five years

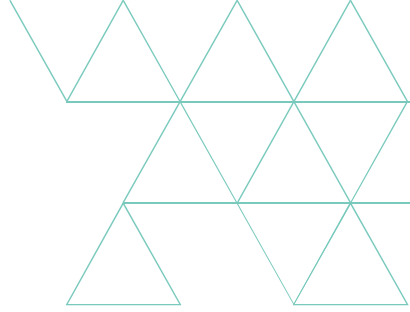


Base: All respondents

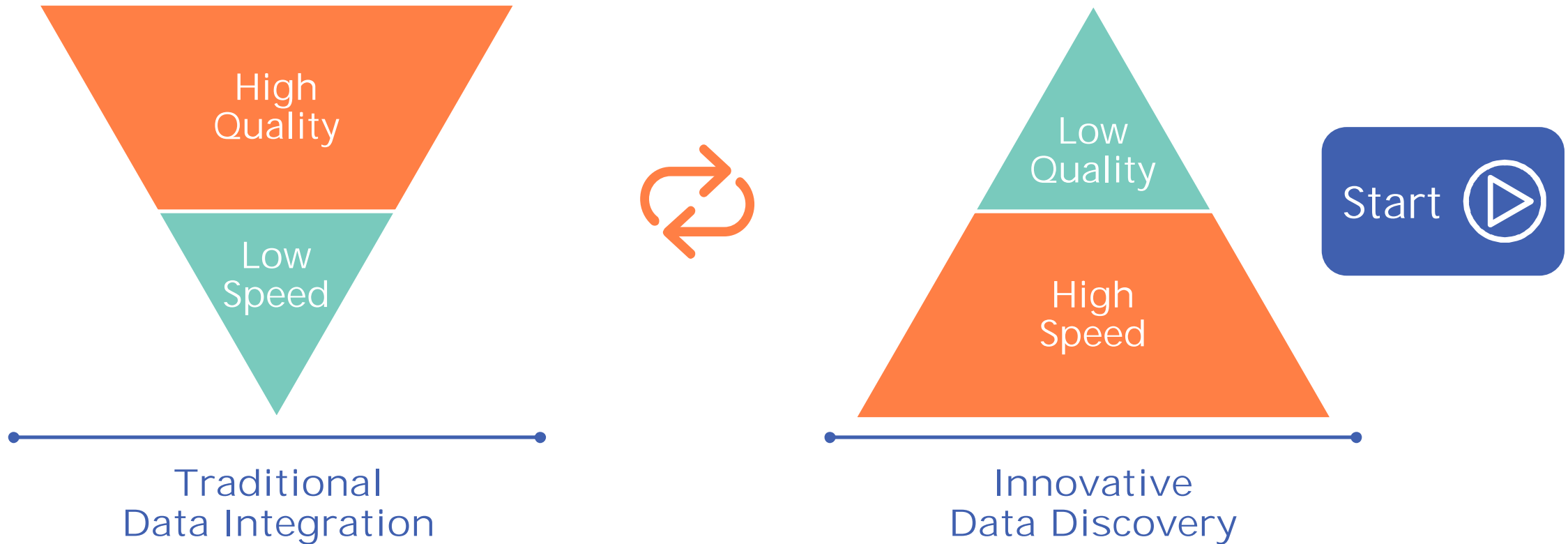
Source: Accenture’s Digitally Enabled Grid research program, 2016 IT/OT survey

Which digital technologies will you be investing in the most, in terms of capability development, within the next 5 years (i.e., between now and 2020)?

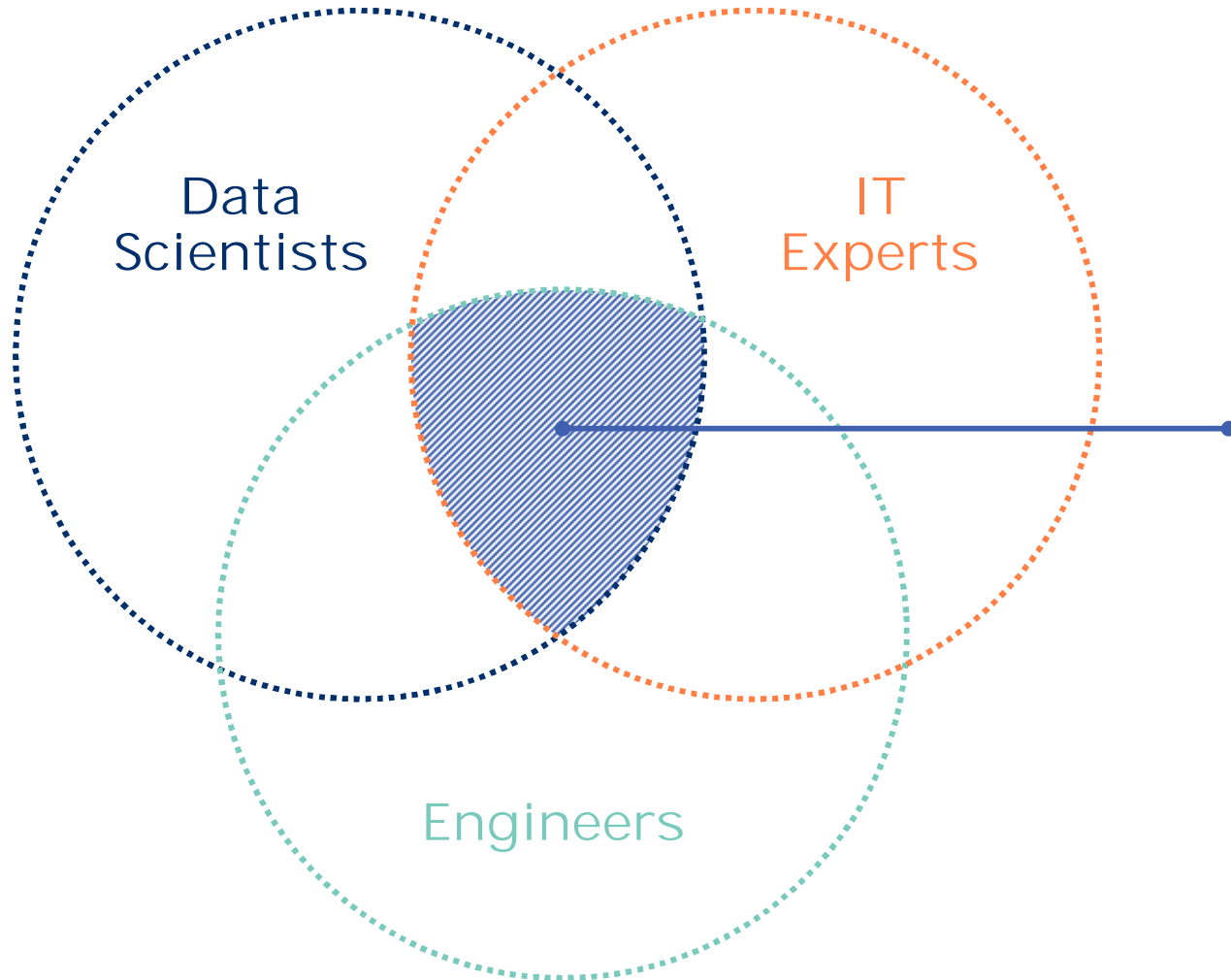
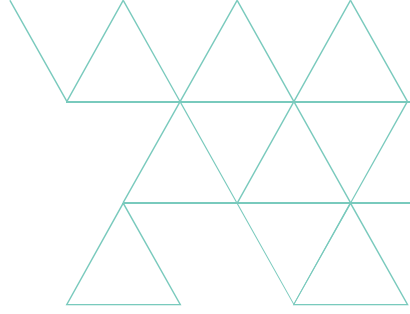
Breaking through the 3 biggest excuses to getting started with analytics: no time, no money, no value



Integration and discovery

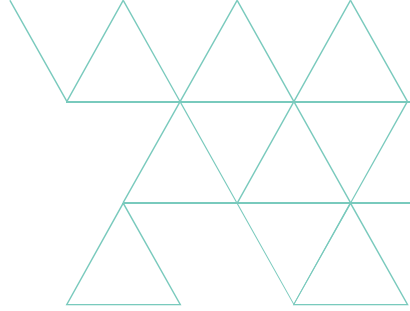


Success requires data crunching, IT knowledge and deep domain expertise



Better outcomes from integrating information and operations technology

OMNETRIC Planning and Outage Intelligence MindApp

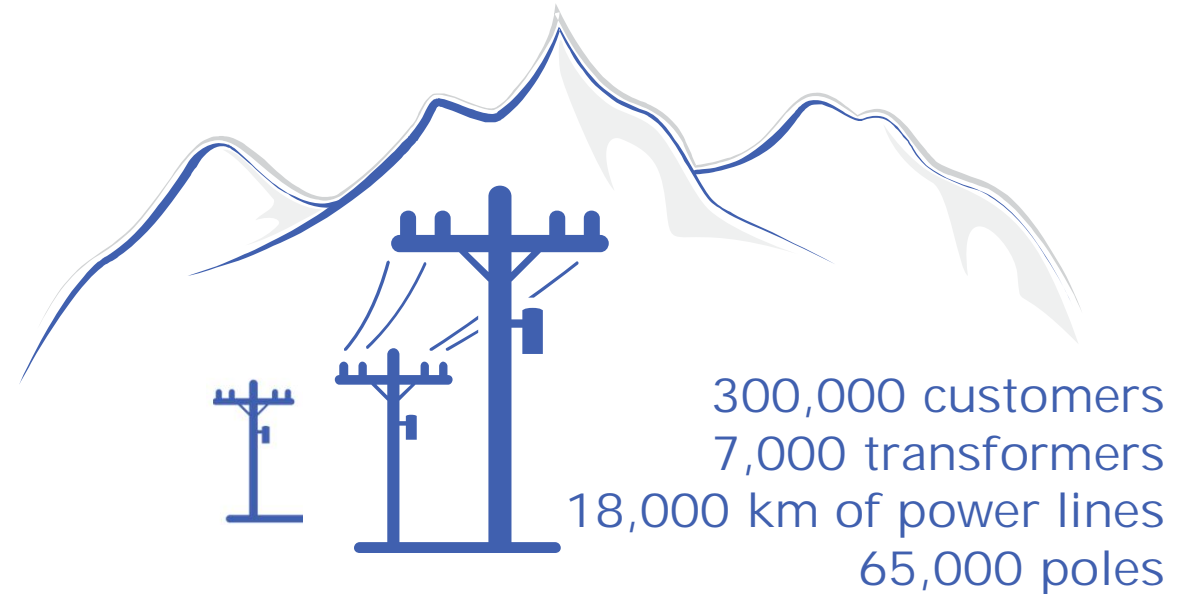


Combining large amounts of different internal and external data about:

- Assets (such as characteristics, inspection detail, ...)
- External context (environment, GIS, ...)

The application manages:

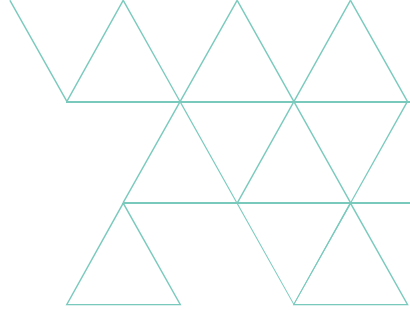
- Complex data integration
- Large-scale data processing
- Sophisticated statistical modeling: two-stage logistic regression model for fully automated outage-risk prediction



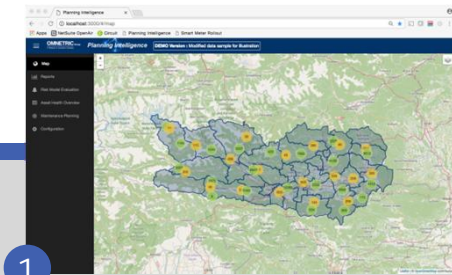
90% accuracy of statistical models @KNG
for outage prediction

**Kärnten
Netz**
Ein Unternehmen der Kelag

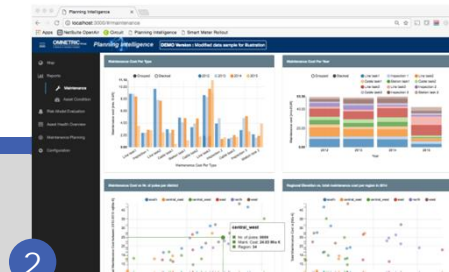
Insights for planning and operational decisions to reduce maintenance cost and drive better service



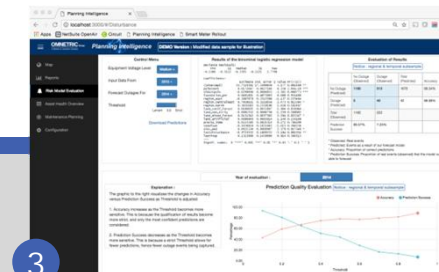
PnOI MindApp



- 1 Geographical distribution of poles and power line segments

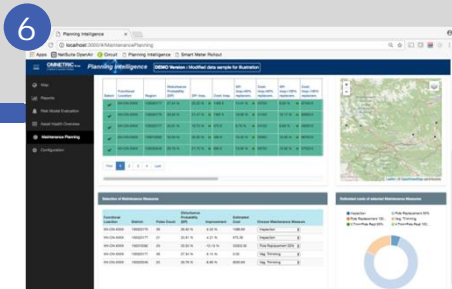


- 2 Asset characteristics e.g. age, type, maintenance activity

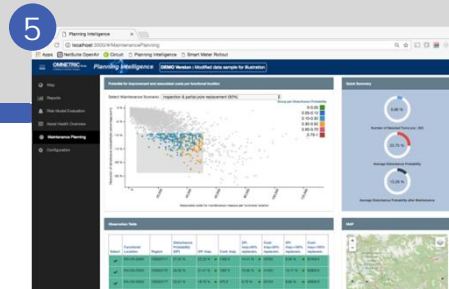


- 3 Risk modeling evaluation

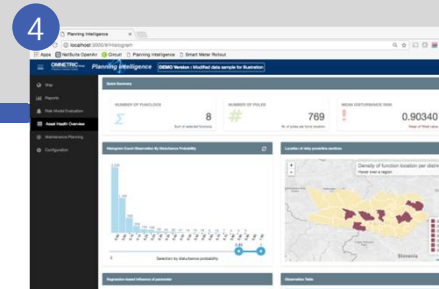
- 6 Annual planning simulates probability of cost/cost reduction of outage



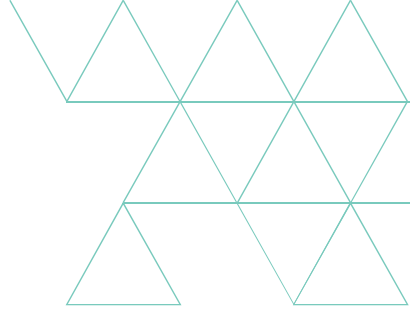
- 5 Maintenance planning simulates impact of maintenance measures on outage probability



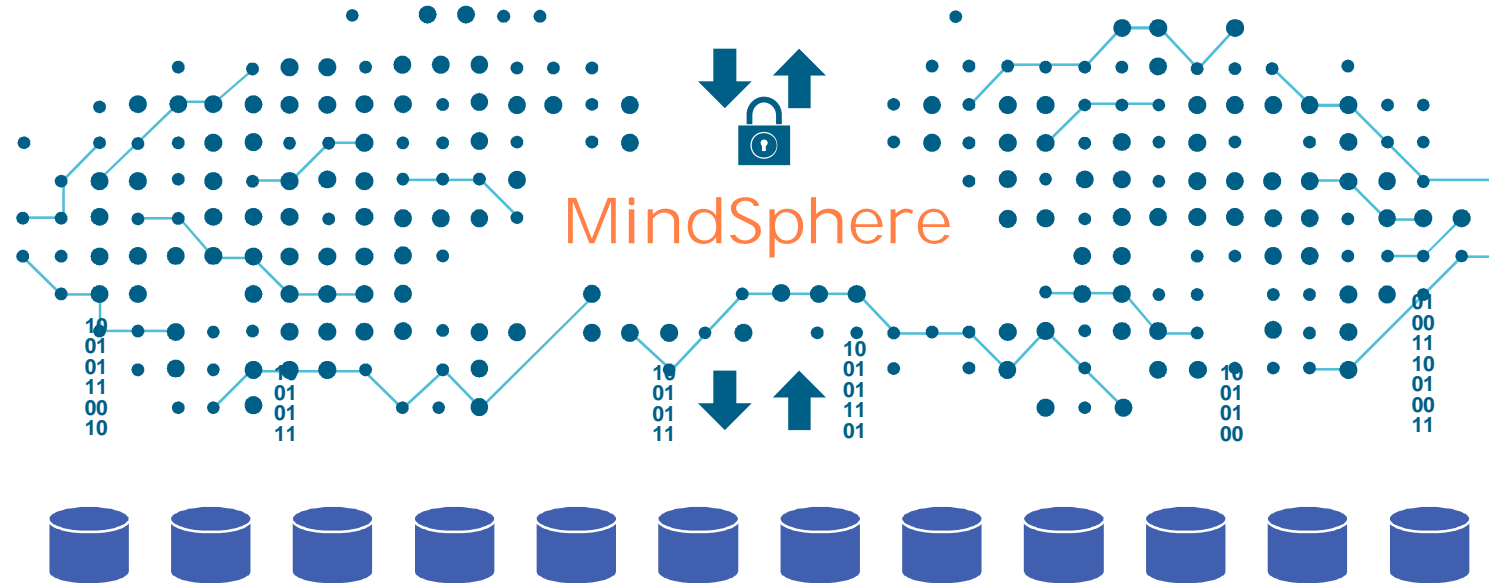
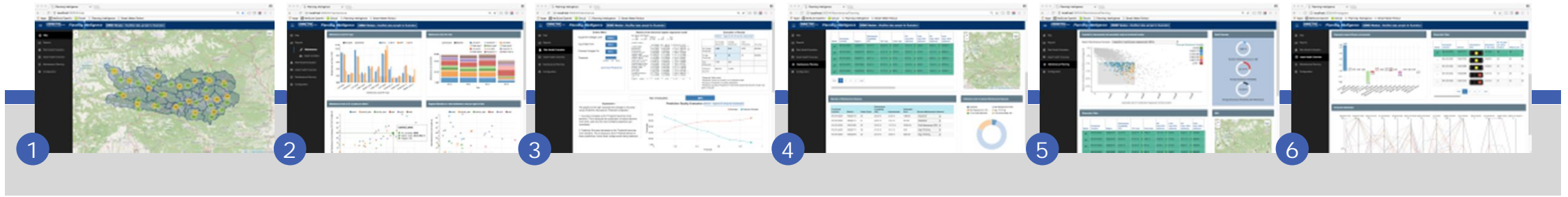
- 4 Asset health summarizes findings about disturbance-related condition of assets



Available running on MindSphere



Powerful. Virtual. Real-time.



MindConnect

Interfaces to client systems and external data sources

It's all just data: multiple analytics applications with different data sources in the energy sector



Assets

- }1.1 AAA – **Advanced Asset Analytics**
- }1.2 CQI – Communication Quality Intelligence
- }1.3 RCAM – Reliability Centered Asset Management



Customers

- }4.1 CCA – Campus Consumption Analytics
- }4.2 FRO – FTTH Return Optimization
- }4.3 ACCP – Advanced Commercial Consumption Analytics
- }4.4 CCI – Comprehensive Customer Insight^{*}



Market

- }2.1 TDS – Trading Decision Support
- }2.2 SDSP – Smart Data and Service Platform^{*}



Sensors

- }5.1 ELV – Extended LV Analytics
- }5.2 PAD – Phase Asymmetry Detection
- }5.3 ESA – Enhanced Sensor Analytics



DERs

- }3.1 RMF – **Renewables Meta Forecasting**
- }3.2 ISSN – Intelligent Secondary Substation Node^{*}



Operations

- }6.1 RSS – Rollout Support Services
- }6.2 CSI – Comprehensive **SCADA Intelligence**
- }6.3 PnOI – **Planning and Outage Intelligence**
- }6.4 iMOC – Integrated Meter Operations Center
- }6.5 GTF – Grid Topology Fingerprinting
- }6.6 GVS – Grid Video Surveillance^{*}



Big data



Advisory

- }7.1 RPC – Roadmap and Prioritization Consulting