Asset Insights Through Analytics

Prepared by Perry Lawton, TESCO
The Eastern Specialty Company

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The Path Forward – Successful AMI Deployment

Organizations that want to grow their business are adopting analytics and business intelligence to increase responsiveness, reduce operational costs and improve asset integrity.

Business intelligence / analytics are crucial to solving key business problems for all organizations. For utilities, it can turn information from smart meter and smart grid projects into meaningful operational insights and understandings about their customer's behavior.

Investment and Returns

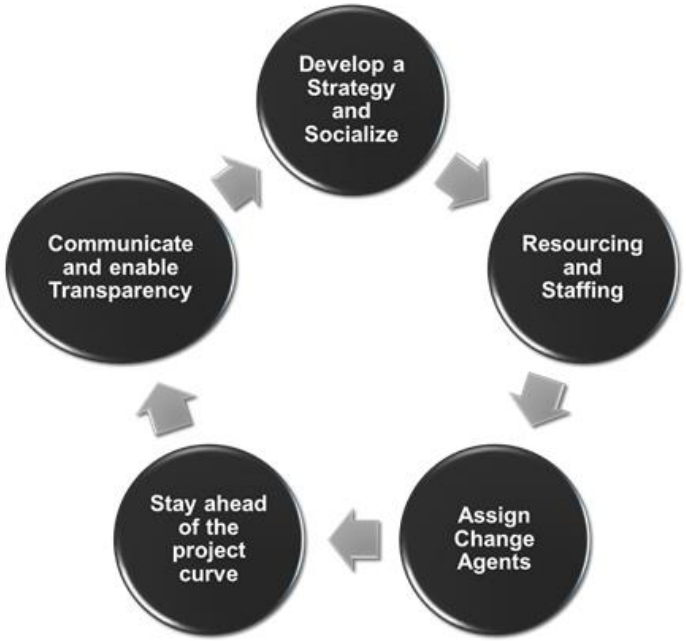
Many companies have been concerned about the high costs and complexity of data. To reduce those concerns, organizations simply need to take a structured approach. This change begins with a realistic review of their analytics maturity levels: where they want to get to, and what they want to achieve.

COTS, Niche Providers, OpenSource, Enterprise Software

It is expected by Gartner that by the end of 2020 at least 25% of new monitoring and control systems in the utility sector will use IoT to enhance the algorithmic business capabilities.

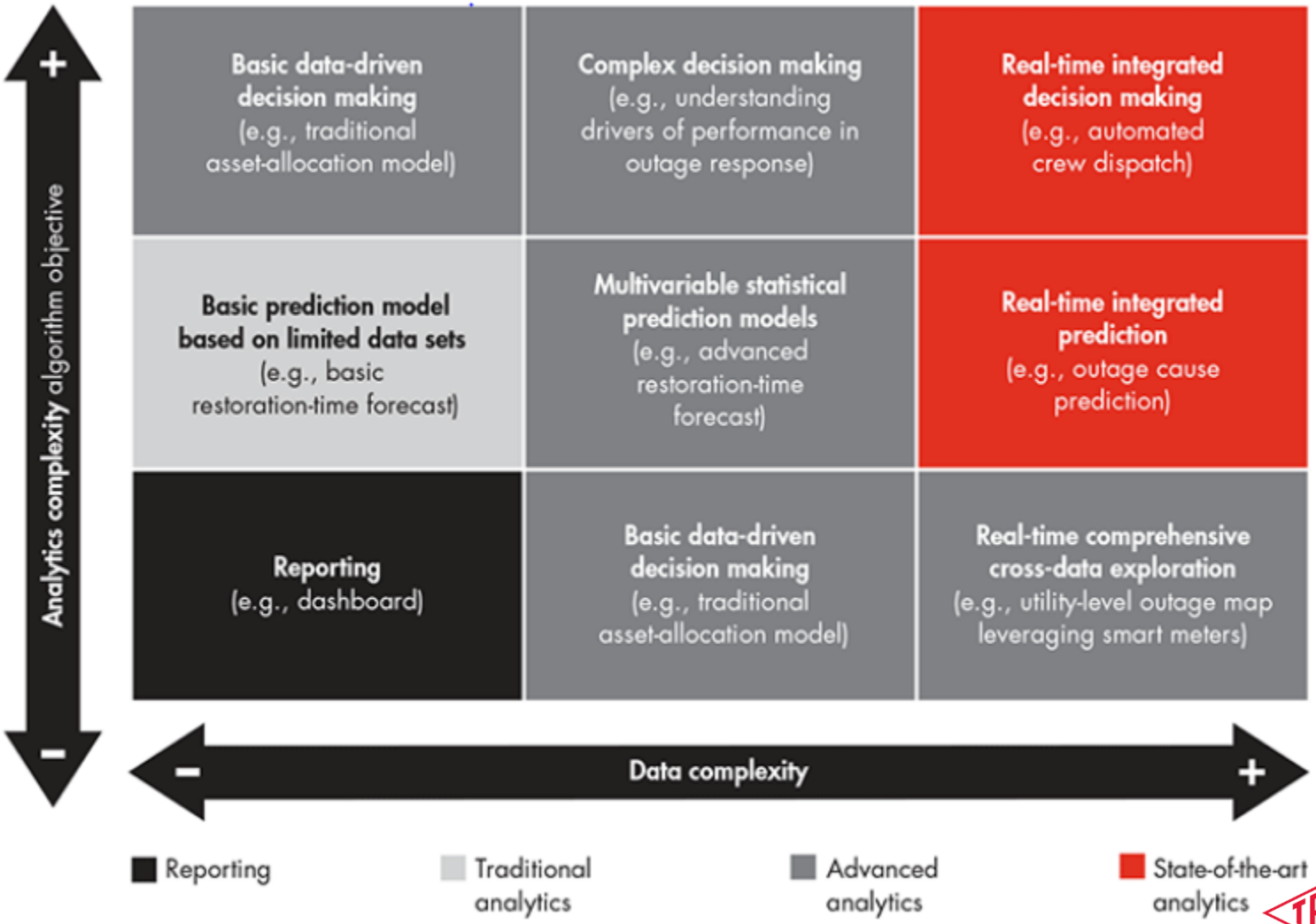
	Product	Ad hoc Reporting	Benchmarking	Dashboard	Key Performance Indicators	Strategic Planning	Visual Analytics
	SAP Analytics Cloud (67 reviews)	✓	✓	✓			
	Qlik Sense (175 reviews)	✓	✓	✓			
	Domo (184 reviews)	✓	✓	✓			
	Tableau (1433 reviews)	✓	✓	✓			
			✓	✓			
			✓	✓			
			✓	✓			
			✓	✓			
	Sigma Computing (77 reviews)	✓	✓	✓	✓	✓	✓

If you Build it, They MAY Come



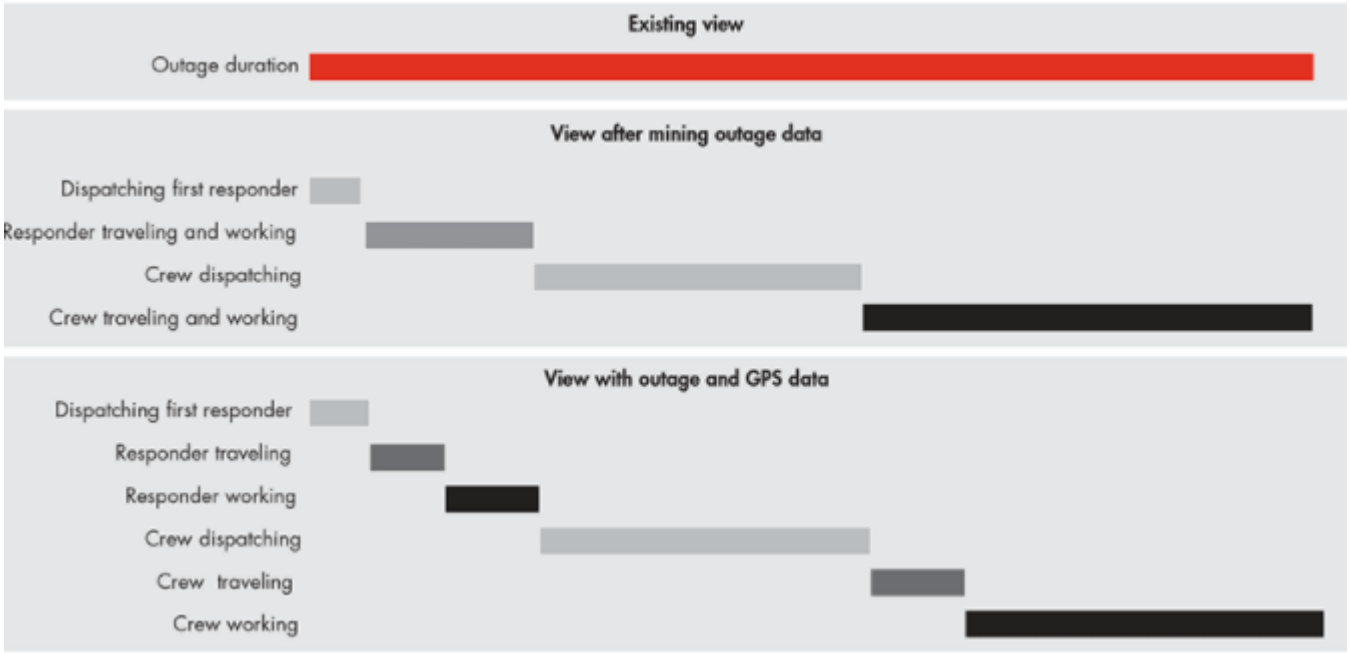
- Start change management early in the project lifecycle
- Gain cross-functional consensus with stakeholders
- Develop a clear strategy, baseline and define the key performance indicators: (Revenue Protection, Efficiency gains, Compliance Risk, Customer Satisfaction…) and their associated metrics
- Staff associates assigned to project should be their only assignment. If part-time, state their dedicated allocation.
- Keep change management efforts ahead of the project curve with constant , transparent updates and successes.

Getting Started



Finding the Value in the Raw Data

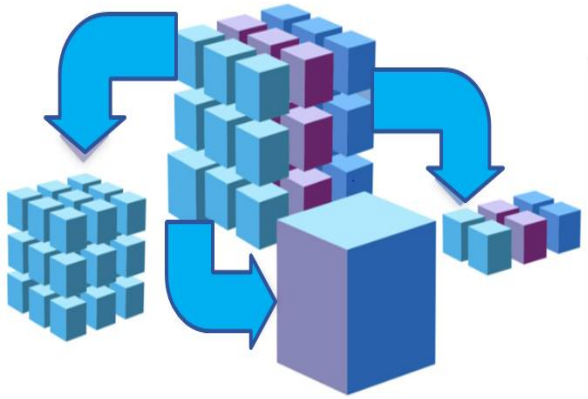
Analytics will help utilities shift from traditional and costly time-based asset management, where network repairs are done on schedule regardless of how much useful life is left in an asset, to a more informed reliability-based approach of making repairs when they are actually needed. Moreover a coordinated cross-enterprise vision can help reduce IT costs.



Quantifiable Targets

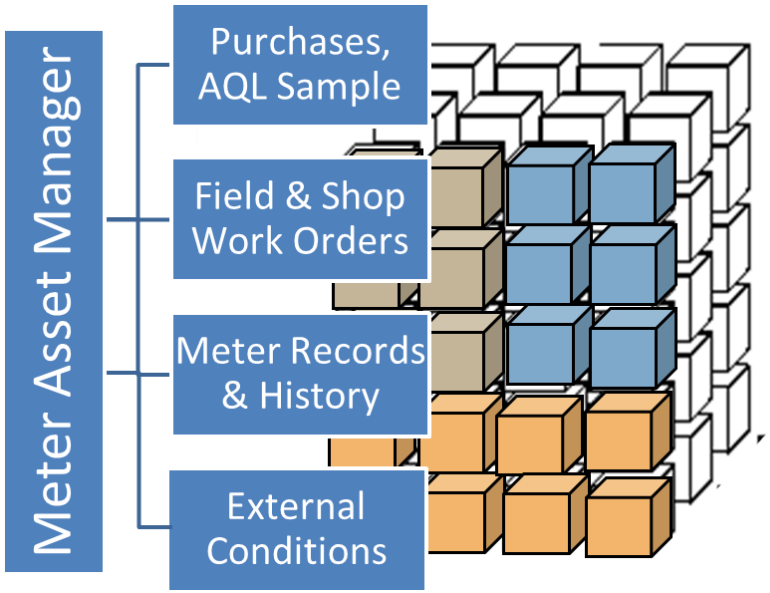
By using the data already in their possession, utilities can see comprehensive information about each of their assets, from purchase through retirement and define measurable goals and success criteria

- This data is enabling us to roll fewer trucks for emergencies.
- This data is allowing us to identify weak spots in our infrastructure and correct them between 8 AM and 4 PM Monday to Friday on non-storm days.
- The data is allowing us to perform long term planning and perform far better rate analysis for proposed new tariffs and to even help create new tariffs.
- The data allows us to better evaluate performance of hardware on our infrastructure.
- The data gives us the tools for the first time to measure, identify, and go after “system loss” in a meaningful and actionable way.
- Detection of losses due to oversized current transformer.



Data analytics will enable utilities to tackle the biggest problems we face today, including failing transformers, unbalanced energy generation based on imprecise forecasts, operational inefficiencies and even addressing and reducing line loss.

How Can We Use It?



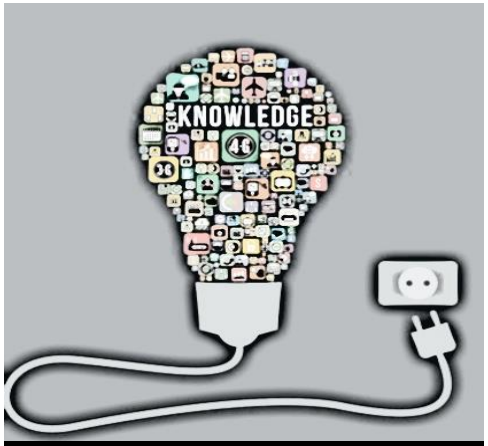
Predictive and Actionable Information

What MFG model / configurations / firmware / program ID had the most AQL Failures – RMA
What's the breakdown of AQL failures/reasons
- ✓ Accuracy
- ✓ Functional

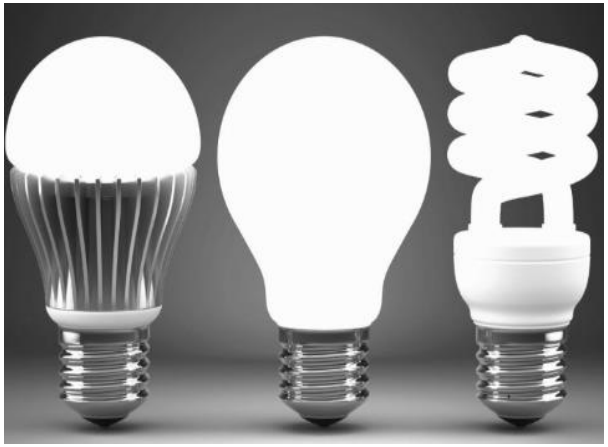
What MFG model / configurations / firmware / program ID had the most field failures - What's the breakdown of work orders/reasons
- ✓ What's the cost of field service tech / truck roll
- ✓ What's the cost of meter shop technician

Weather / Storm data
Area Outages dates
Seasons in which outages occurred
Power surges (date, time, intensity & duration)
Customer Inquiries / Calls

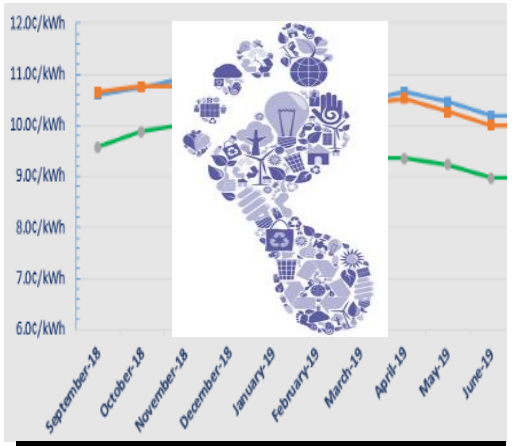
Market the Right Message



Knowledge is Power



Educate the Consumer



Compare & Measure Usage

- ✓ Enabling customers to better manage and reduce their energy costs
- ✓ Improved disputes & settlements
- ✓ Improving system efficiency and resiliency
- ✓ Improve Outage Detection and Restoration
- ✓ Improve Industry Standards Compliance
- ✓ Reduce Carbon Emissions
- ✓ Increased flexibility in rate design

Questions and Discussion

Perry Lawton

Northeast Regional Sales Manager

perry.lawton@tescometering.com

TESCO – The Eastern Specialty Company

Bristol, PA

215-228-0500

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