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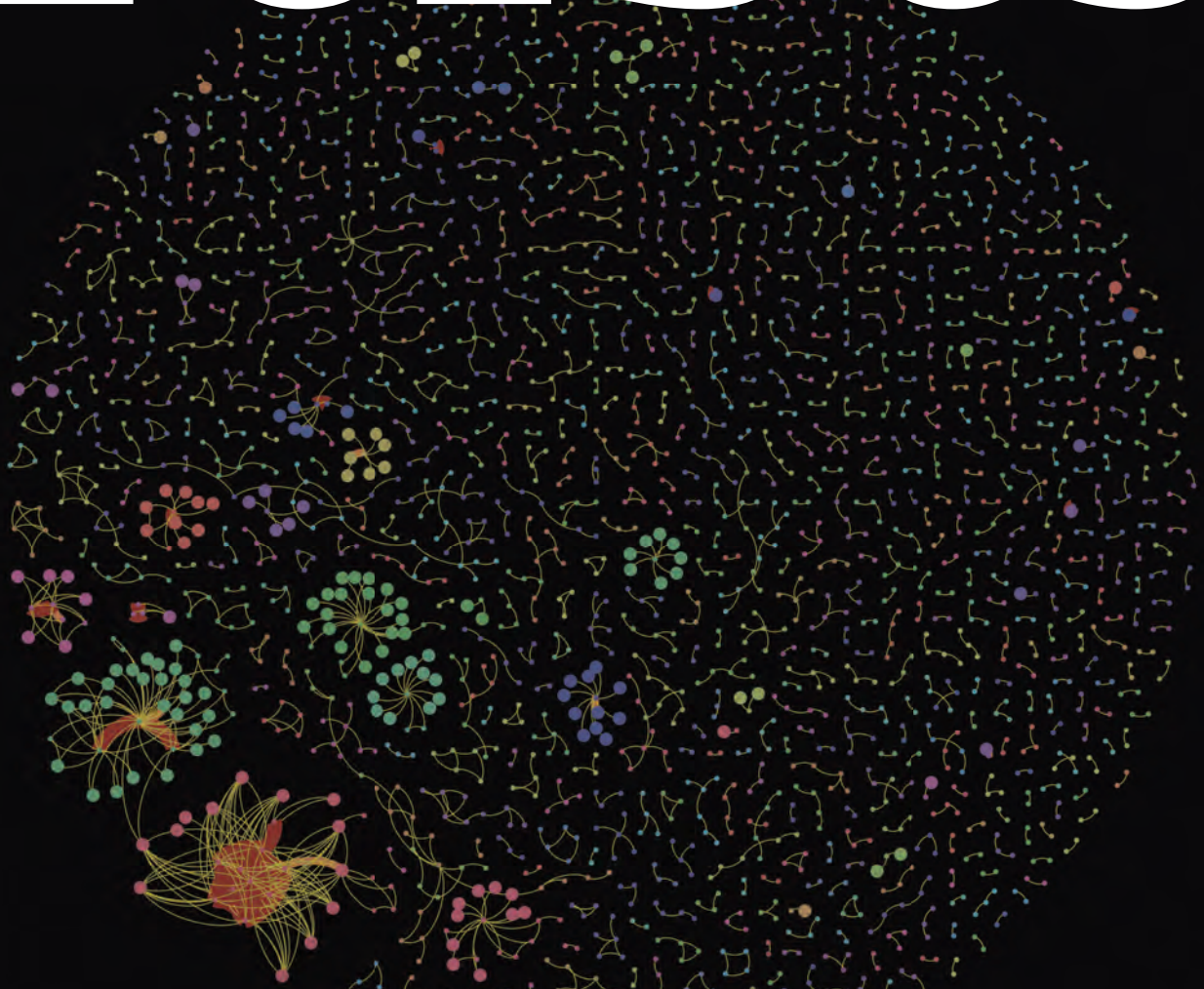

# HIGH-IMPACT BUSINESS OUTCOMES

## ANALYTICS: YOUR MOST POWERFUL PERFORMANCE EDGE

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EXIT

# Foreword

Akio Morita, the entrepreneurial co-founder of Sony once said, "The only sure thing is that in business there are no sure things." I could not agree more, but at the same time, I believe organizations of all kinds can have more control over their business outcomes than that quote implies.

How? It starts by leveraging to the hilt the one strategic asset in your arsenal that no competitor can match—your data. Your organization is unique and so is the information you have about your business, partners, suppliers and customers. In fact, that data holds vast, untapped value. It's just a matter of figuring out where opportunities lie and how to leverage analytics and your data environment to capitalize upon them. At Teradata, we believe analytics are your most powerful performance edge.

As Volvo can attest, analyzing and using the minute details hidden in mountains of data can mean the difference in a new product that falls on its face and a novel innovation that buyers embrace. And Disney knows that combining attitudinal data with behavioral data from multi-channel journeys can help them create more magical experiences.

Those two blogs from Teradata thought leaders and the others in this collection demonstrate the many ways Teradata partners with organizations to capitalize on their data to get closer to a "sure thing" than ever before possible in six key areas:

**CUSTOMER EXPERIENCE**: Gain a competitive advantage and become truly customer centric to optimize the customer's journey.

**RISK MITIGATION:** Evaluate risk process effectiveness to minimize exposure to financial fraud, cyber security risk.

**FINANCE TRANSFORMATION**: Give CFOs the ability to deliver new enterprise value and strategic input, while managing the financial and accounting processes.

**PRODUCT INNOVATION:** Leverage data to create new products, or improve existing ones, so they're safer, more efficient, meet customer needs, are user friendly, profitable, and fill a market need.

**ASSET OPTIMIZATION**: Leverage Internet of Things and sensor data to optimize and unlock significant value from all assets to deliver enhanced products, services and other benefits.

**OPERATIONAL EXCELLENCE**: Achieve peak performance and maximum value by efficiently and effectively leveraging personnel, equipment, systems, and other resources to their full potential.

*Chris Twogood*
*Senior Vice President, Marketing*
*Teradata Corporation*

Talk to us about how data and analytics can help your company drive better business outcomes.
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# What's the Big Data Secret Behind Disney's Magic Customer Experience?

BY YASMEEN AHMAD
*TERADATA*

Or any other retailer relationship, for that matter. Whether shopping for clothes, sniffing-out cheaper utilities, or strapping on a personalised bracelet for a visit to the Magic Kingdom, we expect the earth in return for our custom.

And why not? Shaped by new technologies and channels, this complex marketplace no longer allows commerce to pay lip service to customers. It forces retailers to lionise them. To put customers slap, bang, at the heart of operations.

No wonder browsers are becoming more picky about the buying process and the brands they choose to buy from, rather than the actual products and services themselves.

These days, customer loyalty is hard-won—earned and nurtured by caring for each individual, personally. In other words, by optimising the customer experience. And for businesses with a traditional silo-view of channels, products, and services, this presents a real challenge. To remain competitive, they have to grow out of the habit of concentrating on single moments in time and develop an end-to-end understanding of customer interaction.

## EXPERIENCING CUSTOMERS

The traditional means of measuring customer satisfaction—asking customers to provide feedback after a single transaction—is misleading. Although a customer might have had a successful conversation with a call-centre agent, his or her journey to that call may well have been confusing and stressful. However, by combining attitudinal data (NPS scores from customer satisfaction surveys and complaints) with behavioural data from multi-channel journeys, companies uncover the real story complete with negative, cross-channel customer experiences.

And it pays off in spades. One McKinsey research study showed that optimising customer journeys can increase customer satisfaction by 20 percent, lower the cost of serving customers by 20 percent and, most importantly, boost revenue by as much as 15 percent.

Mapping the journey, understanding the number of touch points plus the length and time between interactions as well as assessing the outcomes, provides a more insightful view of the customer experience. It allows businesses to identify areas that need improvement and optimisation, and to work out the best time to engage individual customers with the most timely and appropriate messages, too.

## THE ZIG-ZAG ROUTE TO BRAND STICKINESS

Previously, analysis relied on mapping customer interactions to a linear journey (e.g. AIDA—attention, interest, desire and action). However, today's consumers leap from stage to stage and channel to channel, making it impossible to map a linear decision-making process.

Consequently, the future of journey analysis involves moving away from a business-only view of journeys, towards analysing the actual routes, paths, and processes followed by the customer. This makes it easier to pick up on unexpected switches between channels, friction or failure within a journey, and leakage.

> **Do what you do so well that they will want to see it again and bring their friends.**
>
> **- Walt Disney**

## YOU MIGHT BE SURPRISED BY HOW LONG A CUSTOMER JOURNEY REALLY TAKES

A predicted 10-minute process for obtaining a new credit card can actually take weeks—from Googling providers, booking appointments, visiting branches and completing applications, through waiting for back-end processing to run its course and mail-out, to online activation.

During such a complex journey, the customer has many opportunities to drop out (e.g. where a simple two-step process becomes ten steps with the customer looping through several attempts to complete an application form or checkout process). These leakage points are a key source of analysis, highlighting business challenges and the need to re-engage those customers by other means.

## DATA-SCIENCE FRICTION

Even if the customer completes their intended action, this is no longer a seamless or positive experience. Worse still, these friction points can lead to failure (e.g. if a customer is unable to complete their transaction online and is forced to visit a branch or store). Channel-switching requires additional effort from the customer, eroding the customer experience.

That said, channel-switching is a strong focus for analysis. It is important to find out whether the switch is down to choice (perhaps they moved from a digital platform to a more personalised channel for one-to-one advice), or whether it suggests something has gone wrong (e.g. an active internet banker abandoned an online application to complete in-branch). Root-cause analysis can help determine the reasons for the switch.

## STOP SELLING—START HELPING

By understanding the complete end-to-end view of a customer journey, businesses have a basis for analysing and improving customer service. The goal is to provide consumers with an omni-channel experience, starting an interaction in one channel and seamlessly picking it up and completing in another.

Banks are making great strides in this area, allowing customers to interrupt an online application process at any point and complete in the call centre, without having to provide the background details of the application again. This saves time and effort for both customer and bank. And earns the bank valuable loyalty points.

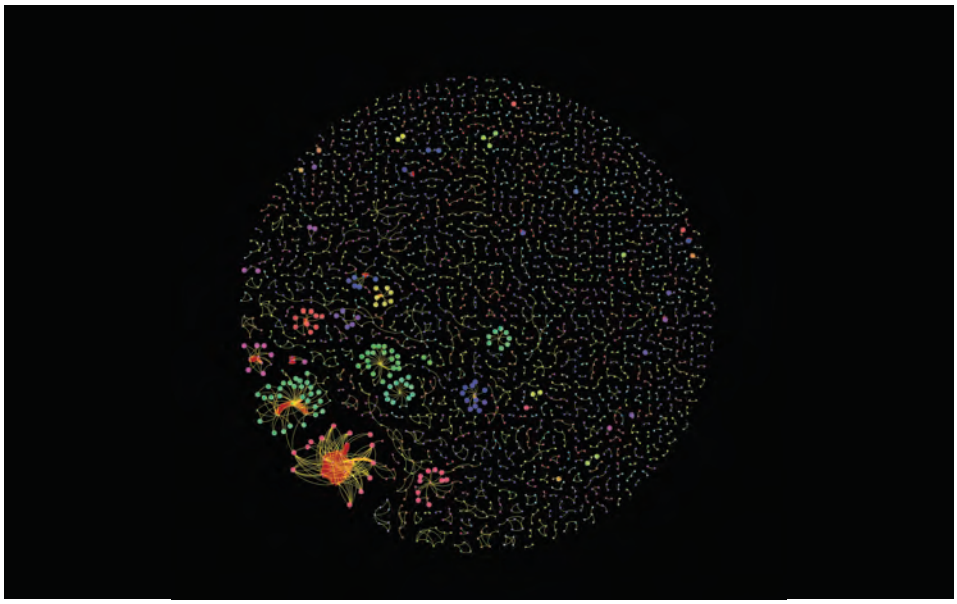
The fact is, businesses have to be totally committed to improving the customer experience if they want to still be around in years to come.

As Walt Disney said: "Do what you do so well that they will want to see it again and bring their friends."

# Fraud Invaders

*New Visualization Techniques Make Fraud a Whole Lot Easier to "See"—and Stop*

BY MICHAEL INGEMANN
*TERADATA*



To contain the problem, many insurers have entire departments and very large budgets dedicated to risk mitigation and fraud. Of course, no company wants to pay a claim only to find out it was bogus. Once the payment is made it becomes all that much more expensive and difficult to recover the loss. That's why so much time and energy is spent to detect fraud before paying a claim.

Traditionally, that means having humans painstakingly go through an overwhelming number of claims one at a time keeping an eye open for suspicious activity. The process is a huge drain on time, resources and revenue. To increase efficiency and productivity while lowering costs, much of that backend research is now being done with data analytics. Even so, a lot of data that might prove meaningful never gets analyzed and often, highly skilled analysts are still needed to interpret results.

## BUT WHAT IF ...

What if instead of wading through masses of worksheets you could cut right to the chase and "see" possible fraud? Well, now you can with advanced analytics and visualization techniques. Let's take a simplified walk through a business case we call Fraud Invaders.

In this case, we set out to answer an insurer's crucial business question: Can you find a new way to bring focus to a tighter subset of cases to make fraud investigations more effective?

We started by collecting claims documents that had been filled out and submitted by the company's customers. Some of those were known to be fraudulent. Those were flagged and put through text mining to extract anything that was a distinctive identifier such as a bank account, email address, phone number, or car registration details. Once that was done, analysis was run to find correlations between claims.

Using that output, we built a network graph or what's commonly called a data visualization. The resulting image that I've included with this blog consists of dots which represent individual claims and lines which draw a connection between data between two claim documents such as matching names or bank accounts.

Sure, it's a pretty picture. But it's so much more. See those clusters of dots? Those are the "fraud invaders." With little more than a glance, you can visually gauge the potential for fraud based on the size of the dots and number of connections. The bigger and more connected the cluster, the greater the suspicion of fraud.

Using this graph as a foundation the claims team can pull out the likely suspects and concentrate the weight of their investigations on that group. Some will not prove to be fraudulent but for those that are, much less time, resources and cost will have been exerted to achieve those "gotcha" moments. Plus, additional incidents may be uncovered that would have otherwise slipped through.

In the end, we delivered what the insurer needed and we did it in a compelling and easy-to-understand format.

Not in the insurance business or not out to nab fraudsters? Maybe your "gotcha" is reeling in new customers or retaining current ones. Advanced analytics and visualization can help there too by revealing networks of people and heavy influencers who can help you attract new customers or cause you to lose them. There are so many opportunities to explore.

No matter what your goal is, Fraud Invaders offers a good lesson in how to achieve the desired business outcome when you start with a solution—rather than just a problem—in mind.

Learn more about proactive Risk Mitigation with Teradata and stop incidents before they happen. Visit ***www.Teradata.com/RM***

# Getting "Financially Intelligent"

*Three Questions CFOs Ask About Analytics*

BY CHRIS HILLMAN
TERADATA

As evidenced by industry analysts' studies, CIOs continue to put business intelligence and analytics at the top of their list of technology investment priorities. In a time where the CFO has to sign all those big checks, the office of finance clearly understands that leaders throughout their c ompanies need the competitive advantage of technology that helps them more effectively manage the business.

Beyond the general value to the overall business, forward-thinking CFOs are showing more and more interest in the value of analytics and business intelligence solutions for the functions they directly manage. These leaders recognize that the ability to use and reuse data for a wide range of analytical tasks can help them balance the demands of financial and risk management in a volatile business environment.

Yet even these finance executives still have questions about why traditional technologies like ERP platforms can't provide the necessary insights, or why an integrated, analytic finance foundation is even necessary. Some of CFOs' most common concerns are why and how to invest in enhanced analytical capabilities, but in my experience even when finance leaders appreciate the conceptual value of transforming their approach to data and analytics, they still want help with the following insights:

## WHAT ARE THE LEADERS DOING?

A study by The Hackett Group showed that world-class companies have a higher level of standardization, but they use 10.2 fewer finance applications per $1 billion in revenue than other companies. The same study also showed that world-class companies produce 781 fewer business performance reports per $1 billion in revenue than other companies.

The study proved that, while complexity does impede standardization efforts, most complexity is actually self-imposed. High quality, targeted information leads to more efficient and effective decision making. This is just one of many data points indicating that leading companies are already embracing an integrated finance foundation to stand out from the crowd.

## WHAT ARE THE CHALLENGES OF BUILDING A FINANCE FOUNDATION?

Despite the potential benefits, it can be difficult to move to a data-driven, multi-dimensional finance model thanks to:

- Rapidly increasing volumes of stored data with no common definitions
- Lack of industry standards
- Changes in business software
- Difficulty deciding which BI tools and data marts should be decommissioned or revamped
- Poor data quality that prolongs time-to-value

To overcome these and other analytic barriers, make sure to plan in advance how you and all relevant stakeholders—from finance, IT, BI, and line of business management groups—will overcome them. Read up on comparable-size companies who have tackled similar challenges and consult with your counterparts there.


## HOW DO WE GET STARTED?

First, ask peers who have already traveled the path to point you toward potential technology and services partners with the ability and experience to overcome these challenges and help you best utilize and understand all of your data. Success also requires a very strong CFO department that can spell out and follow a set of guiding principles including simplification, standardization and consolidation.

Equipped with such expertise and focus, you will be well equipped to perform these key initial steps:

- Define how you want to view and analyze profitability
- Identify who's asking for profitability analyses, and how they are using them
- Document and validate business requirements
- Create a functional definition of the profitability model
- Conduct a detailed data assessment
- Develop and prioritize a roadmap
- Approve the roadmap and start small
- Create a logical data model
- Develop calculations and business rules

An effort that is sometimes viewed as too all-encompassing to be practical becomes much more feasible when it's broken down into a clear list of steps such as these. By following the proven path toward establishment of a fully integrated finance analytic foundation, including the related multi-dimensional insight into your company's profitability, finance and IT organizations can team to provide analytic capabilities that empower the C-suite and make a measurable contribution to improved company performance.


# Look, Mom! No Hands!

*Volvo Cars Gives Being in The Driver's Seat a Whole New Meaning*

BY KATHERINE KNOWLES
TERADATA

You've heard of the Internet of Things? The topic is hard to avoid considering it's in most blogs and business articles when they discuss data. The Internet of Things (IoT) comprises billions of sensors around the world generating data in volumes unheard of until now. But, it is just hype? Or does it really mean something to you? To your company? To our world?

Like big data before it, there is a lot of excitement about the possibilities—and an equal measure of uncertainty. It's one thing to generate and collect the data, it's quite another to understand it and use it to create value.

Although many companies are at the beginning of that journey, Volvo Cars is well along the way. True to their brand promise "Designed Around You," the company pushes the traditional boundaries of innovation anticipating what customers will want and need in the future; a perfect example, IntelliSafe Autopilot Self-Driving Cars.

Based on research that revealed the average commute is 26 minutes each way—and understanding that a lot of players around the world would like to fill those "free" minutes—Volvo Cars launched "Project 26." This ambitious initiative capitalizes on IoT data and advanced analytics to build a vehicle that gives drivers alternatives while idle in their cars. "The self-driving cars, which are based on Internet of Things, need to be online to be autonomously driven. The fact is that we can offer new functionalities to the driver because the driver doesn't need to drive the car any longer. That

> **The obvious next step for big cities is that you have a car service, rather than owning the vehicle. That is a full change of our business principles.**
>
> **- Jan Wassén**
> ***Director of Business Analytics, Volvo Cars., Director of Business Analytics, Volvo Cars***

will create a new business situation. We would like to make sure that we create an environment where we are, at least in the controlling position of how this [time] is being used," says Jan Wassén, Director of Business Analytics, Volvo Cars.

Safety First! An uncompromising part of Volvo Cars' brand promise is safety and that is at the heart of the "Aim for Zero" vision. Volvo Cars promises no serious injuries and deaths by 2020. Really! They are leveraging the Internet of Things (IoT) into the Analytics of Things (AoT) and developing next-generation, real time safety features for Volvos. Imagine you hit a patch of ice. Your Volvo's Friction Indication System takes that sensor data and sends it to cars and their drivers behind you to warn them that there is ice ahead. Taking that a step further, the system sends an alert to road crews so they can treat that stretch of pavement to make it safer for everyone.

This is just the beginning! There are so many futuristic safety and convenience advancements available on Volvos today. Others include:

- Pedestrian & Animal Detection
- Road Edge & Barrier Detection
- Vehicle to Vehicle Communication
- Self-Parking & Adaptive Cruise Control with Steer Assist

But how is Volvo Cars using IoT to change their business? By capitalizing on the scores of new business opportunities that emerge once they really dig into and analyze the data. During our sit down, Jan Wassén told us, "When we come to 'Transportation as a Service' or 'Mobility as a Service,' there's a game changer for the whole society. We've heard about removing parking lots in larger cities because you don't need so many cars. The full ownership of the vehicle will look different at least in the bigger cities and megacities in the future. We're pretty sure about that. The obvious next step for big cities is that you have a car service, rather than owning the vehicle. That is a full change of our business principles."

Taking advantage of this enormous paradigm shift, Volvo cars is venturing into new businesses. Have you heard of Sunfleet? It is the world's first car-sharing service. Not only can drivers have easy access to a vehicle when needed, they can trust them to be in tip top condition. That's because data and advanced analytics provide proactive maintenance alerts allowing service to be performed proactively before a problem can occur.

Quality. Safety. Environment. And cars "Designed Around You." Volvo Cars is committed to these core values and with IoT data and advanced analytics they can deliver on them.

Visit ***www.Teradata.com/PI*** to learn more about how Teradata can help you demystify Production Innovation to drive more predictable and more successful business outcomes.

# Powering Innovation. How Does Enedis Serve Up Electricity To 95% Of France?

BY KATHERINE KNOWLES
TERADATA

When you think about pushing the limits of analytics and data with cutting edge access to actionable insights, innovations such as the Internet of Things (IoT), data labs, and open source are bound to pop into your mind.

And when it comes to imagining a company that is doing all that and more, who comes to mind? If you're in France, at the top of the list is Enedis, the neutral distribution systems operator (DSO) that French municipalities entrust to manage the maintenance, development and operation of the electricity distribution network for 95% of the country.

Enedis serves two major public service duties. First, managing service continuity and quality for 1.3M km of electric lines; and second, providing non-discriminatory access to the distribution network. To fulfill these responsibilities—and their top priority of NO outages—the company not only operates, maintains and develops the network, they also invest in digitizing, modernizing, and securing it.

And it relies heavily on analytics.

## SMART METERS, SMARTER BUSINESS

Smart meters and sensors on the network generate a large volume of data on consumption, environment (think weather data), and consumer production. This information is fed into the company's analytical ecosystem where it is processed and used to execute and operationalize business actions for both internal and external initiatives.

In one example use case, Enedis combines multiple data sources including 10 years of historical data such as temperature to understand patterns for transformer failure. This allows for predictive maintenance on the equipment, improving reliability and preventing outrages, ultimately improving customer satisfaction.

Such foresight is what puts Enedis ahead of most in this industry. As Christian Buchel, Deputy CEO & Chief Digital Officer puts it, "This kind of predictive maintenance has been developed in other industries, such as aircraft, but not yet for energy companies."

Enedis is also putting the power of insight and therefore action, in the hands of suppli-

ers. They are able to see consumer usage as well as grid assets which enables them to determine their connection to the grid, pricing, and even look at the reduction of non-technical losses, such as consumption with an inactive contract, metering dysfunctions, or presumptive fraud.

## CHANGING THE CULTURE

Putting analytics and data into the hands of workers (literally) has changed the culture within Enedis. Recently, they deployed more than 10,000 field tablets and smartphones to their employees and developed an internal app store. This immediate time to market with transparent and direct access to information has had very positive impact according to Christian Buchel: "They [employees] can immediately access the problems they have when they are talking with a consumer or local authority. They can show the mapping of the grid. They can say, 'Okay, we can connect here, here and here.' The equipment, coupled with the mobile application is a huge game changer for the culture of the company because employees access the information immediately and can give answers to the local authority or consumers."

With open access, Enedis is also giving power to the end consumers enabling them to have more choice, save energy, and money; improving customer satisfaction. Christian Buchel sees this as another positive step: "To empower the consumer, the consumer needs to have data. They need to view historical load curves of their consumption. We bring them this data so the consumer can say to their supplier, 'This is not a good price because in the last month my consumption load curve was this, this and this …' They are empowered by the fact that they know their consumption. Data transparency is a way to empower the consumer."

## PREDICTING THE FUTURE

With this pace of innovation, Enedis is always looking to understand how demand and production needs will change in the future, and how they can keep providing better control and consumption of energy to their customers. One of the ways they are doing this is by being a contributor on 18 different "demonstrateurs." These proofs of concepts test full-scale, highly anticipated features and services of energy to show future requirements of an electric grid, including connections to wind power, electric vehicles, smart cities, smart buildings, and much more.

As new paradigms take hold, "analytics of things" will become more pervasive—and necessary—in business. And we predict companies like Enedis that embrace new ways of doing things will be the ones that make it to the top of the innovators list year after year.



# Beyond Six Sigma: How Advanced Analytics Is Transforming Manufacturing

BY CHRIS TWOGOOD
TERADATA

If you've lived in a house for a long time, renovation can be daunting. Things work the way you expect. You're in your comfort zone. The thought of ripping down walls and peering at the wiring is unsettling.

Introducing new advanced analytics to manufacturing operations is a bit like that kind of transformation. It brings many opportunities, but to move forward you must tear down some walls. For those willing to take the first steps, the benefits can be spectacular.

Manufacturers continue to achieve amazing results by fine tuning individual processes. Typically, that has meant optimizing processes with discrete silos of activity—supplier, manufacturing, quality, or logistics.

In the Six Sigma optimized world, the next big step forward is to create visibility across all those processes and beyond, out to field services and even telematic product usage. Today's big data platforms enable manufacturers to collect all of this data, apply new analytic techniques, and meld it with existing reliability and quality metrics to quickly find new insights with significant bottom-line consequences.

One way big data platforms move manufacturers beyond traditional process-driven, quality and reliability metrics is by integrating product usage data into the mix. Analysis of customer feedback, help and support desk logs, web interaction, social sentiment, product usage, and geospatial information provide a remarkable degree of

information that's far beyond today's limited "it broke" data point.

People in the field often see problems. Text analysis of a pilot's log might reveal comments about vibration, stalls, or events and factors that sensors may not detect. Telemetric data—humidity, pressure, altitude, temperature, location, and usage information—can provide vital clues about where products are used and operating conditions. Some environmental data can be derived from geospatial analytics combined with weather data, particularly if equipment is used outdoors. The right data and advanced analytics infrastructure makes it possible to leverage all this knowledge and bits of information to improve reliability calculations.

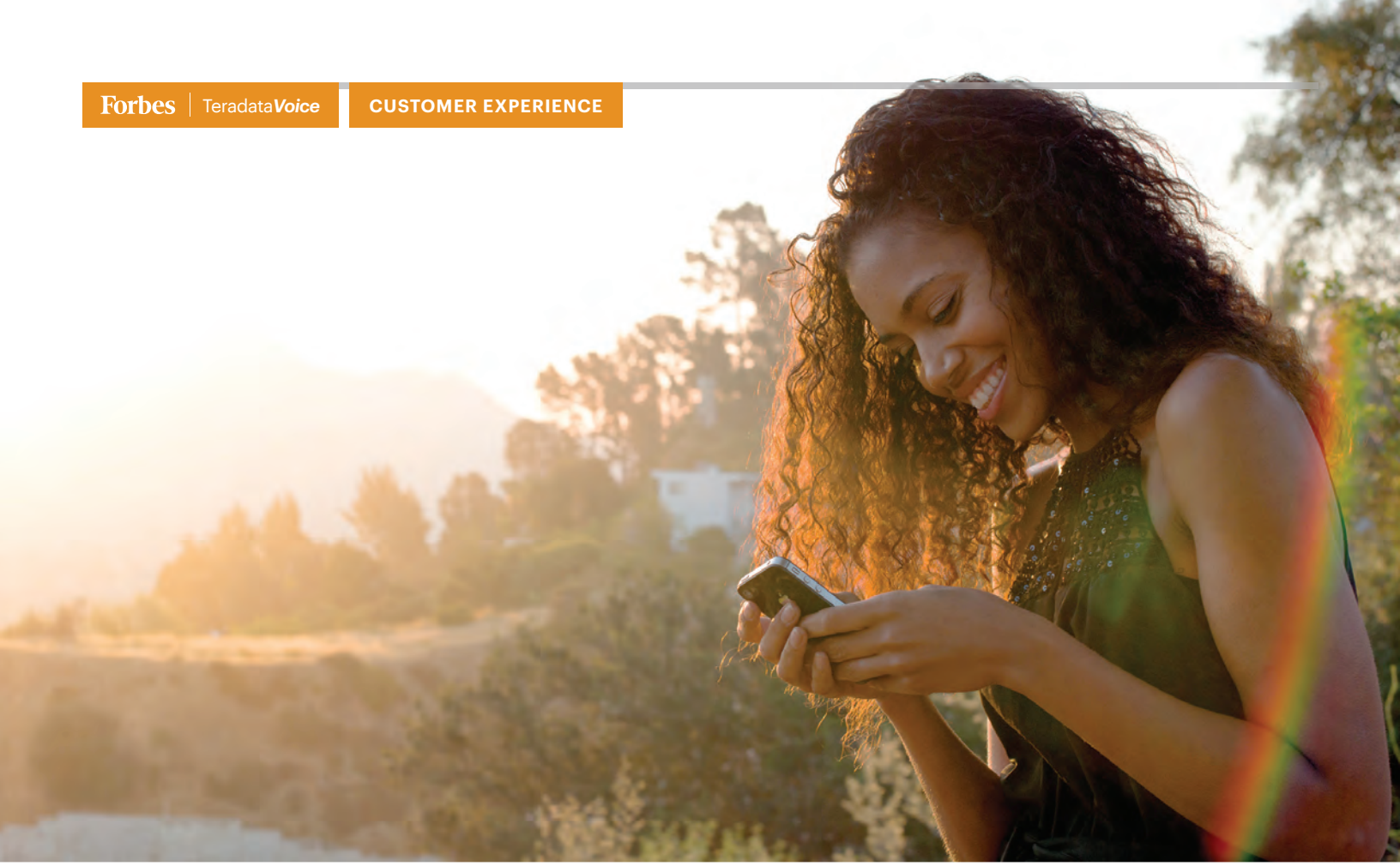
Visibility from product design all the way out through field services augmented with new big data analytics like text, sentiment, geospatial, and telemetric statistical process control changes the game. It shifts the manufacturer from a forensic orientation relying on time consuming, post-mortem evaluations to a rapid-response or a predictive stance that uses new sources of information to get to the "how" and "why" of an issue before an in-house evaluation begins. I've seen root cause analysis reduced from two weeks to one day using these techniques. This predictive capability enables manufacturers to more precisely manage cost centers such as quality, warranty reserve, and spare inventories while improving brand image with better service and higher quality products.

Applying advanced analytics to such data enables manufacturers to be both reactive and iterative in the short term to effectively manage quality issues as well as provide a feedback loop up the supply chain in order guide long-term product development.

If information from the field warns of a quality event, a manufacturer can immediately begin applying analytics that help correlate the event with possible causal factors across all processes in their supply chain. If something is taking place in shipping, at a particular plant, or with a certain operator or supplier, the manufacturer can make immediate decisions based on a better understanding of risk and can pick the right strategy, whether it's to stop production, issue a surgical recall, or fix the problem with software or firmware. Reducing response time is particularly desirable in high volume manufacturing where hundreds of thousands or millions of devices are produced and enter the supply stream each day.

Long term, insights from the field are invaluable for designing the next model of a product. In today's environment, manufacturers are often not the ones collecting data about use; it's service people. Now that the data and analytic infrastructures have matured and business are evolving towards a data driven culture, manufacturers and end customers will continue to get closer with a great by-product: better quality products and better service.

Data analysis takes down the walls between processes in a manufacturer's supply chain. Like any renovation, putting in place advanced data analysis doesn't happen overnight. Fortunately, it is possible to introduce this capability incrementally, connecting specific parts of the supply chain. At scale, those small percentage improvements that reduce claims, improve reliability, and enhance customer service can translate to savings of tens or hundreds of millions of dollars.



# What's a Virtual Unicorn and What Does it Do? Verizon Knows!

BY KATHERINE KNOWLES
*TERADATA*

Finding new sources of revenue is critical for any business, no matter the industry. But as current revenue sources decline in the ultra-competitive telco market, companies in this industry have an especially big challenge.

So, what sets a leader like Fortune 15 giant Verizon apart from the crowd? They are committed to innovation and it all starts with advanced analytics—building a crack BI team they dubbed their "virtual unicorn."

Under Grace Hwang, Executive Director of Financial Performance & Analytics, BI, Verizon's BI team serves both the CMO and CFO while supporting finance and marketing as well as IT. In a recent conversation, Grace explained what this unique blend of partnership and responsibilities means to the organization:

"Our mission is to be the honest voice and the independent third-party opinion on the success or opportunities for improvement to the business. So, my unit is viewed as the golden source of information, and we come across with the honest voice, and a lot of the business decisions are through various rungs of course correction. Oftentimes it's not that you made the wrong decision but rather your competitors are making changes in the marketplace, and you're forced to react to it. So, we try to guide the business through the best course of correction wherever applicable timely so that we can continue to deliver record-breaking results year after year. So, I have no doubt that the business intelligence had led to such success in the past."

With so much at stake, Verizon no longer uses gut to make decisions but science-based decision making. That's why it's so important to hire the right talent. And, Verizon knows the employees they want!

They look for four key skills: mathematical; statistical; communication; and business acumen. All are equally important but it's nearly impossible to find people that have all four. So, Verizon strives for what they call the "virtual unicorn"—a team that together has it all.

Clearly, people are vital to Verizon's success, but where does analytics come into play? By combining the right people with the right processes and infrastructure, Verizon is perfectly poised to gain insights and competitive advantage with advanced analytics in four areas:

### 1. NEW SOURCES OF REVENUE

The next frontier in data is the Internet of Things (IoT) and while defined success has been limited, Verizon knows IoT holds promise. R&D teams use data, analytics and partnerships to continue testing and developing on this front to find untapped sources of revenue.

### 2. CORE MOBILE BUSINESS

Verizon has multiple use cases where advanced analytics have enabled laser-accurate churn prediction in their mobile space. Imagine accuracy within 1-2% for a $131B company! It starts by identifying specific patterns in tablet data usage and how it changes over the contract period. Then they can predict churn, advise the business, and come up with ways to stimulate usage to avoid a "time bomb" in the near future.


### 3. MOBILE PHONE PLANS

In the past, mobile phones were subsidized payment plans; the monthly statement paid for the service as well as the phone. Now, people are paying for their phone on their own which opens white space for Verizon to conduct business in a different way. With the analytical environment, Verizon follows the customer's journey to figure out when customers churn under a new plan. Now, although they don't have a crystal ball, they do have advanced analytics that are used to detail the risk grid to both marketing and finance when pricing plans change.

### 4. BUSINESS EFFICIENCIES IN SUPPLY CHAIN AND MODERN DAY MARKETING

Grace Hwang defines modern day marketing as the 7 P's:

- **PEOPLE** – understanding customers and their needs to create the product
- **PLACE** – where customers shop
- **PRODUCT** – the item that has been manufactured and is for sale
- **PROCESS** – the process of how your customer gets to the shop or the place
- **PRICING** – working with promo to get customer's attention
- **PROMO** – working with pricing to get customer's attention
- **PHYSICAL EVIDENCE** – the business intelligence that gives insights

All of these help point to whether or not you are penetrating the market. Are you reaching the market in the way you thought? Are you making optimal offers?

For Grace Hwang, "Each step in the seven P's ought to be able to tell [our decision makers] where there are opportunities for improvement. Oftentimes, you will find that your product offer is the right one, but your pricing failed on you and/or your messages aren't getting across to the customers or you're selling in the wrong place. Business intelligence needs to help the business identify where they break down in the food chain. It could be any of the seven P's, but it is the physical evidence that is going to convince us."

Since 2000, Verizon has depended on data and analytics to build a reliable network, ensure customer satisfaction, and develop products and services. As they march forward, they expect this solid foundation to help them stay on top of the marketplace and create innovations that will continue to deliver competitive advantage long into the future.

New sources of revenue, reduction in churn, more efficient marketing. Whatever your Customer Experience goal, find out more about how Teradata can help you achieve it. Visit ***www.Teradata.com/CE***