



WORLDWIDE ERC®

2018 Global Workforce Symposium

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# Leveraging Technology: How Data Analytics Applies to Global Mobility

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# What is Analytics?

## *Reporting & Dashboarding*

*Counting and summarizing to determine what has already happened.*

Business Intelligence

Data Visualization

Statistics

Machine Learning

Artificial Intelligence

## **Analytics**

Using statistics and other advanced methods to estimate what is most likely to happen.

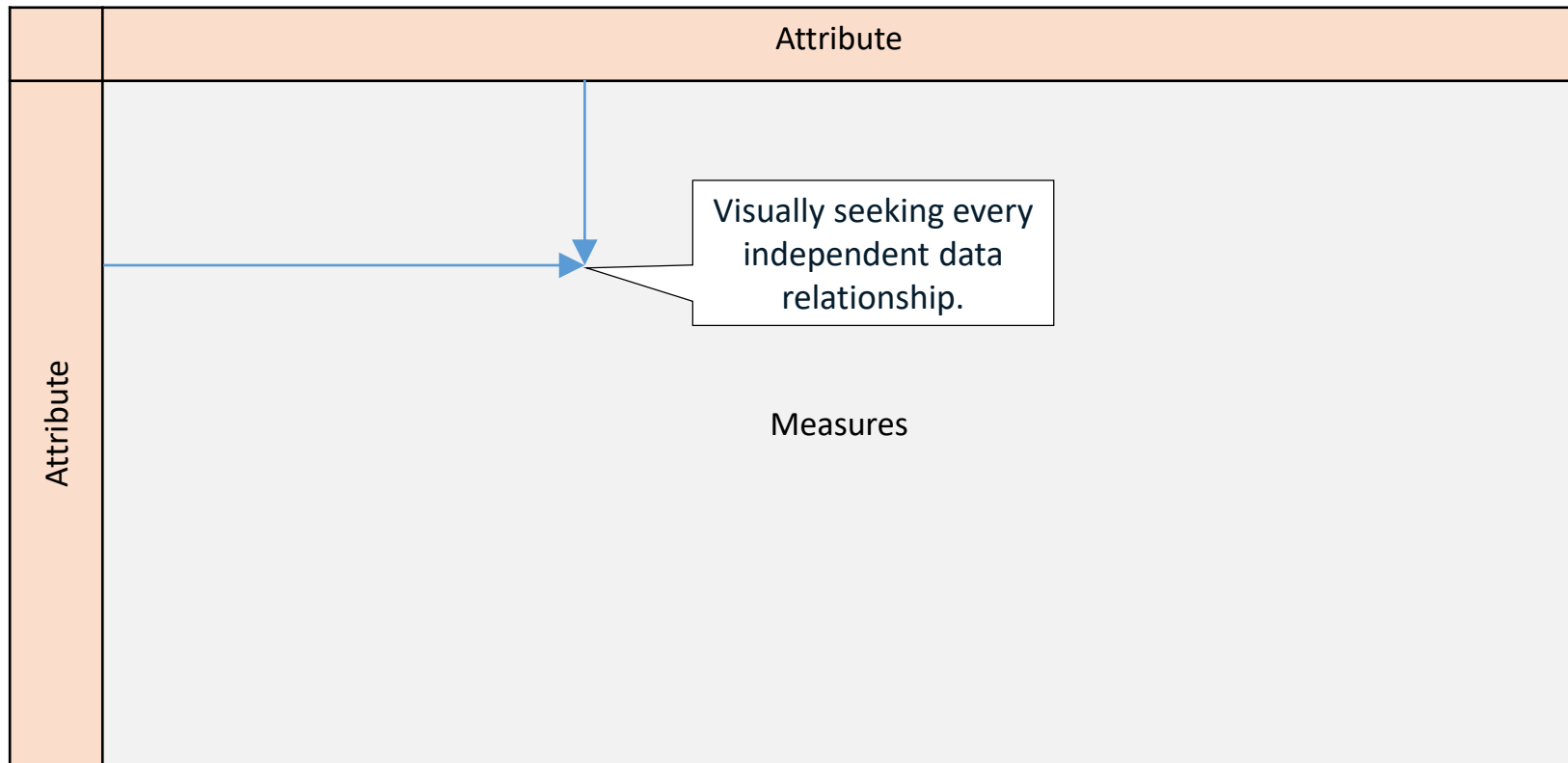
Predictive Analytics

Deep Learning



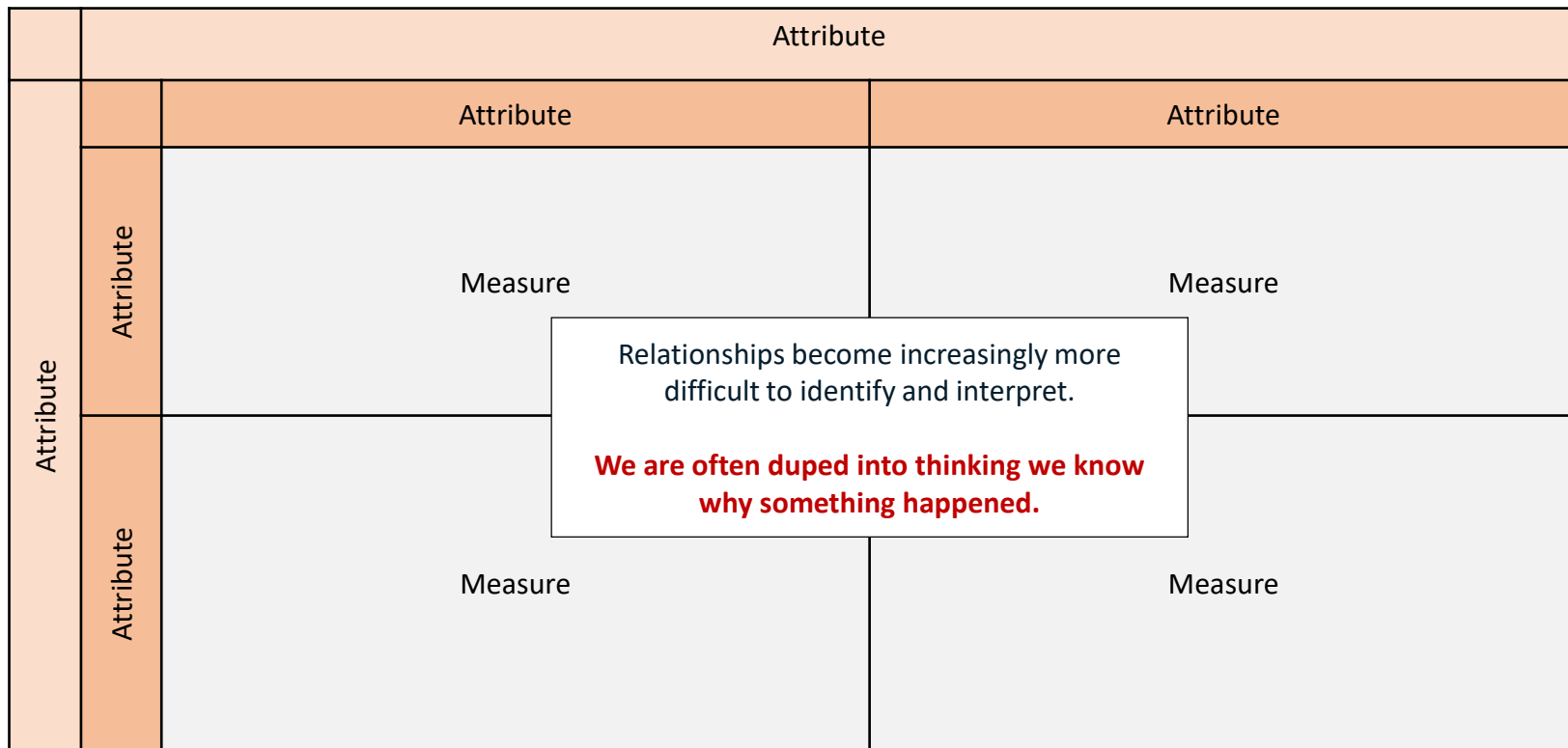


# The Problem with Reporting (BI) Alone...





# More Data, Even Less Clarity





# Example: Automotive Dealership

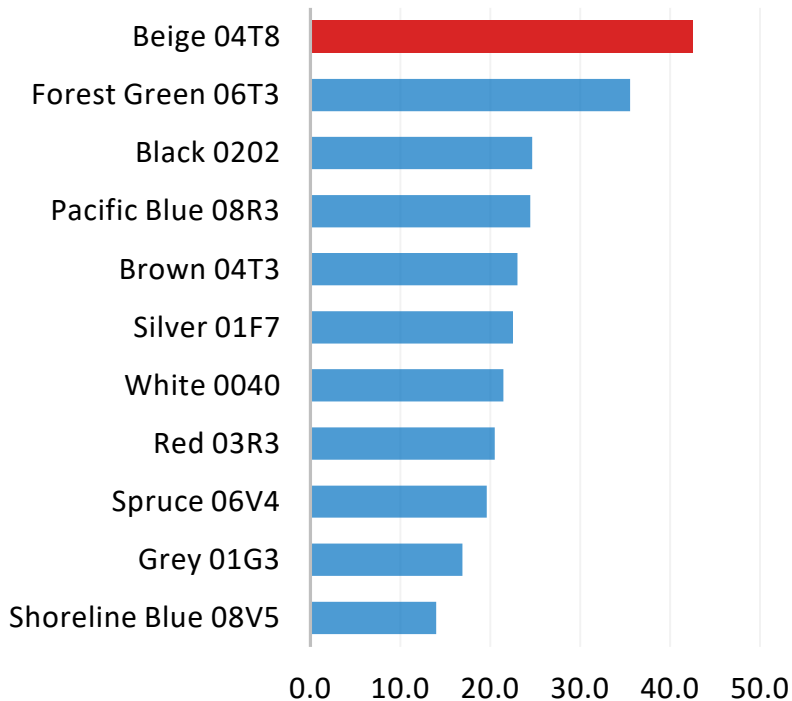
- 💡 How do we increase sales and inventory turnover at dealerships?
- 💡 How do we ensure there is enough inventory on hand?
- 💡 How do we distribute that inventory to maximize revenues and profits?
- 💡 What vehicle features are driving sales?
- 💡 How do buyer preferences vary by customer segment and geography?



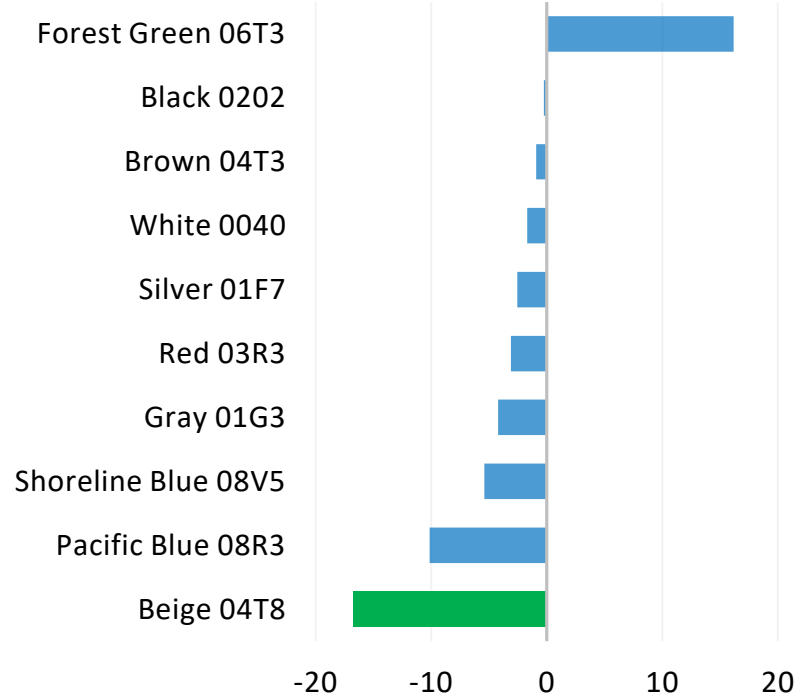


# Right Problem, Wrong Approach

## Average of Days on Lot by Color



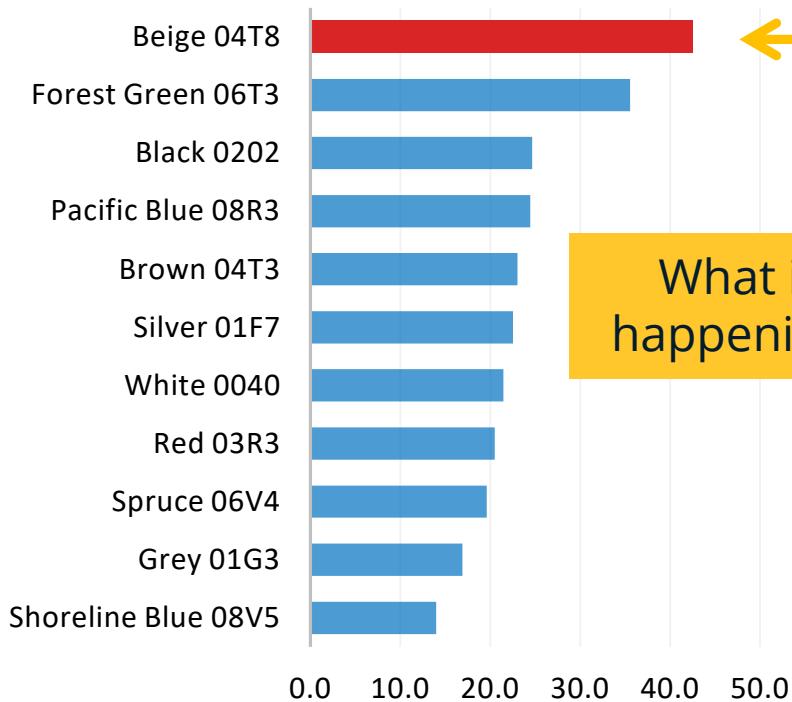
## Statistical Impact of Color on Days on Lot





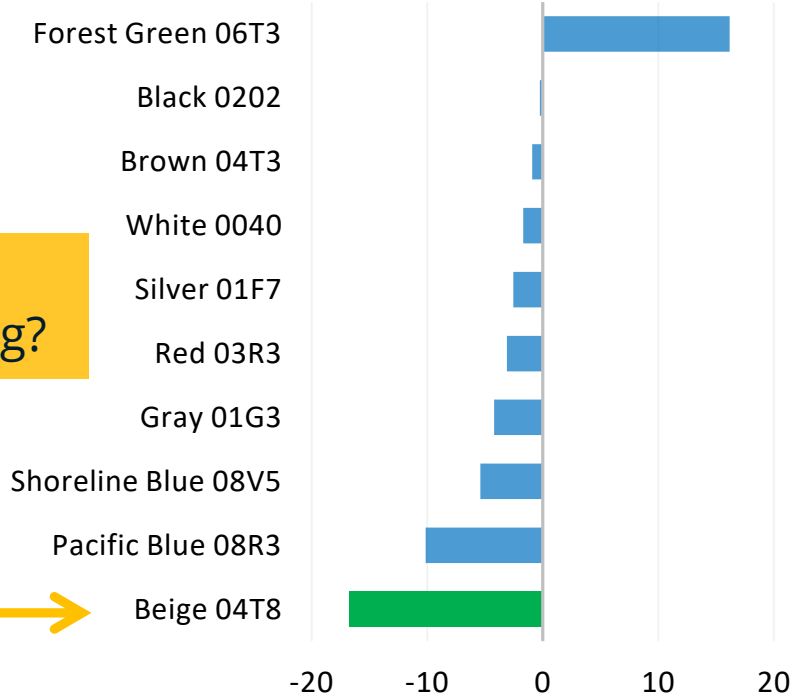
# Right Problem, Wrong Approach

## Average of Days on Lot by Color



Beige Cars are Bad!

## Statistical Impact of Color on Days on Lot



Beige Cars are Good?



# Which Approach is more Holistic?

## Descriptive Approach Considers

1. Average Days on Lot
2. Color

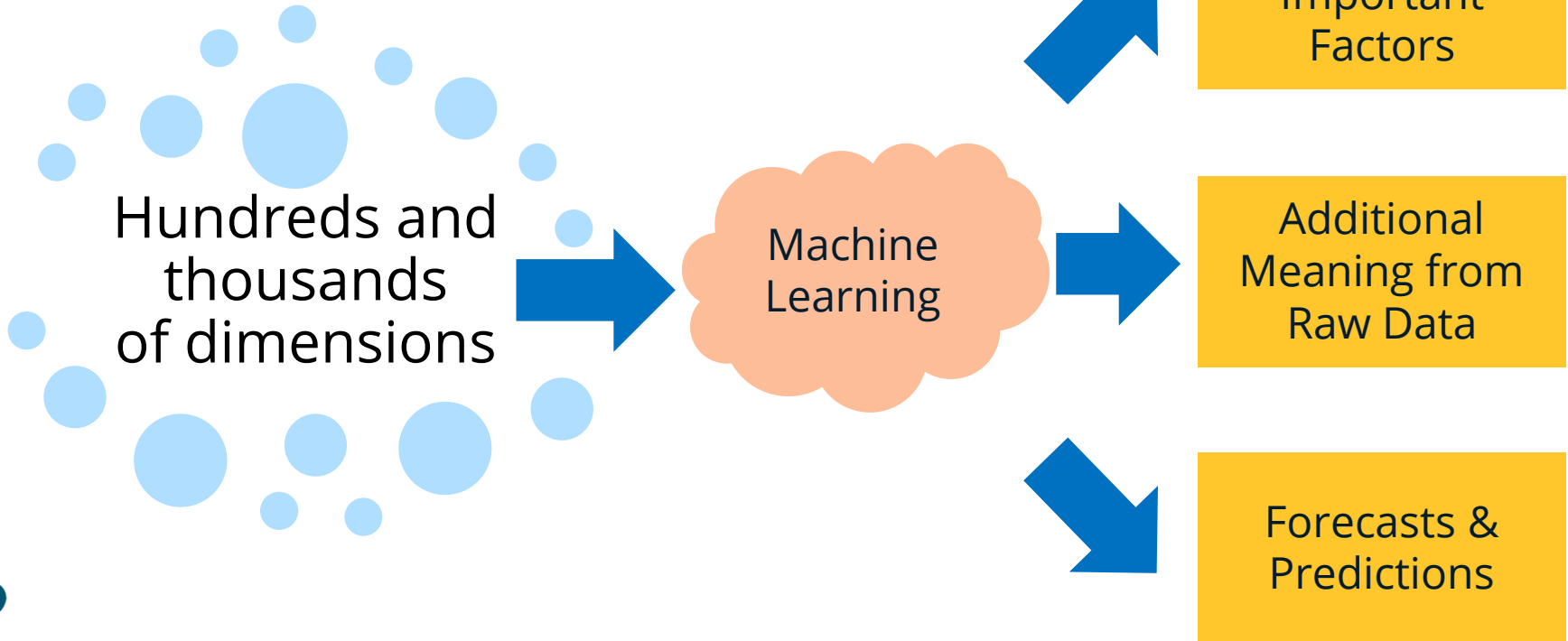
## Predictive Approach Considers

1. Days on Lot
2. Color
3. # Doors
4. Engine Size
5. Trim Level
6. Options Package
7. Horsepower
8. Fuel Economy
9. Active Promotions & Marketing
10. Local Population Statistics
11. Dealership Historical Performance



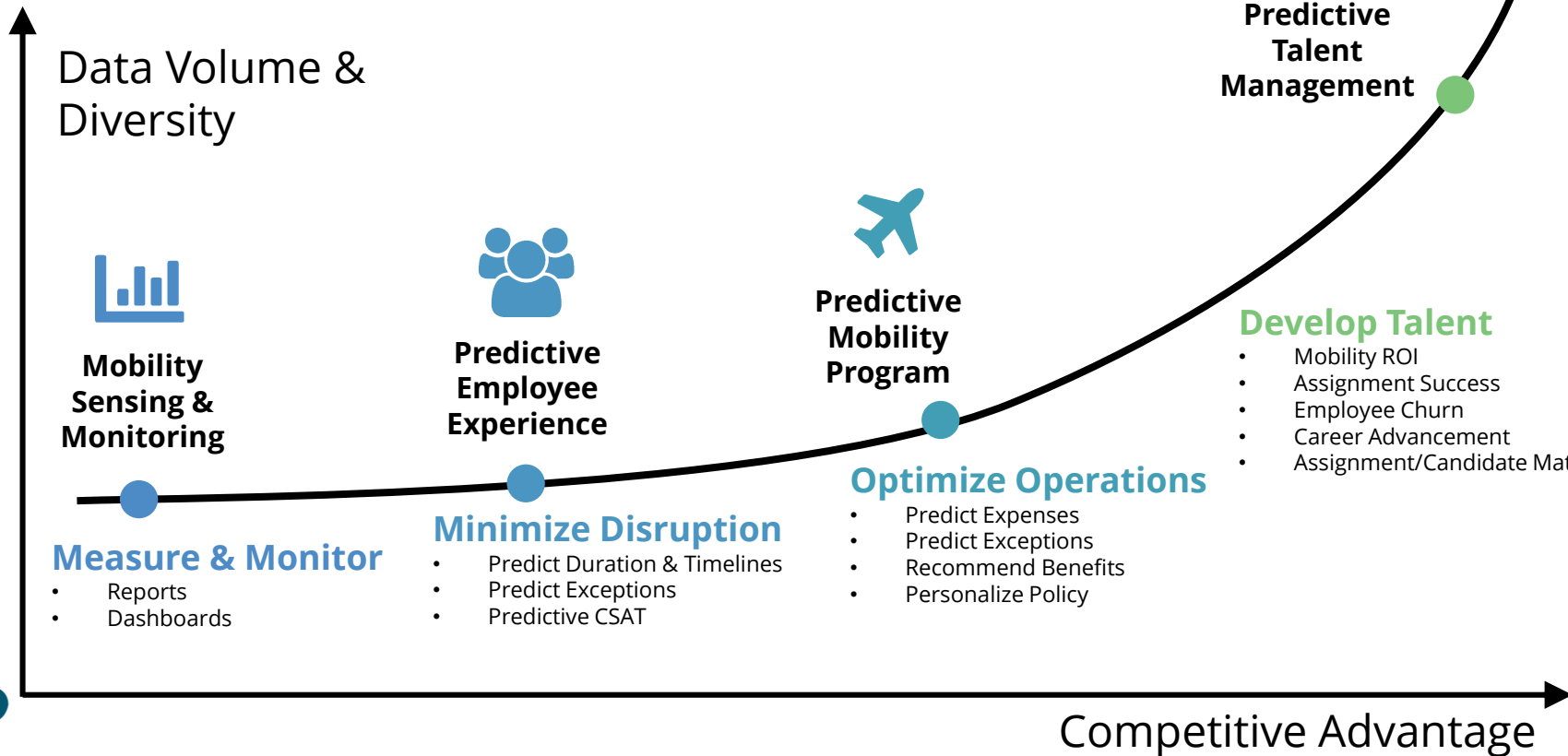


# How Does Machine Learning Help?





# Data & Analytics in Mobility





# Predicting Move Exceptions



## OPPORTUNITY

*Employers could manage move expenses and employee experience better if they could proactively anticipate exceptions.*

## VALUE / ROI

- *Higher Employee Satisfaction*
- *Shorter Move Duration*
- *Lower Move Expenses*
- *More Accurate Budgeting and Planning*
- *More Proactive Policy Design*

## NUMBER OR EVENT TO PREDICT

*Will this employee request an exception during this time period in the move process?*



# Predicting Exceptions in Detail

Predictive  
Employee  
Experience



Up to 75% (Initiation) - 93% (Policy Call) Accuracy of Predicting Exceptions

- **Move Type Matters**
  - Homeowners are 2X likely to request exceptions
- **Employee Type**
  - Experienced new hires are most
  - Inexperienced new hires least
- **Region Pairs**
  - Intra region moves trigger the fewest exceptions
- **Product Categories**
  - No products reduce exception likelihood
- **Contacts**
  - Customers with the highest number of Cartus staff assigned to them are least likely to request exceptions.
- **Family Situation**
  - Customers who move with family are 2X more likely
  - Customers who leave family behind are also likely
- **Clients are Unique**
  - 79% of Client X request exceptions, while only 4% of Client Y do
- **Unique Policies**
  - Clients with a large number of distinct policies in place have employees most likely to request exceptions



# Personalized Benefit Recommendations



## OPPORTUNITY

*Use recommendations to passively manage the experience of employees on lump-sum or point-based policies.*

## VALUE / ROI

- *Higher Employee Satisfaction*
- *Shorter Move Duration*
- *Lower Move Expenses*
- *Manage Risk in New Environments*

## NUMBER OR EVENT TO PREDICT

*In this scenario, which benefits or services will yield the shortest move and highest employee satisfaction?*



# Predicting Mobility Success / ROI



## OPPORTUNITY

*Select the best candidates or location for workforce mobility*

## VALUE / ROI

- *Higher Employee Satisfaction*
- *Lower Employee Churn*
- *Better Business Outcomes*
- *Higher Mobility ROI*

## NUMBER OR EVENT TO PREDICT

*What is the ROI of this move?*



# Key Takeaways

- Need for Data Diversity
  - People are complex
  - Combine mobility, talent and 3<sup>rd</sup> party data to maximize opportunity
- Need for Data Volume
  - Law of large numbers
  - More examples to learn from
- Need for Ethical Applications
  - Utilized like Myers Briggs, Predictive Index, etc.
  - Requires logic to defeat bias and feedback loops





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**Thank You!**

