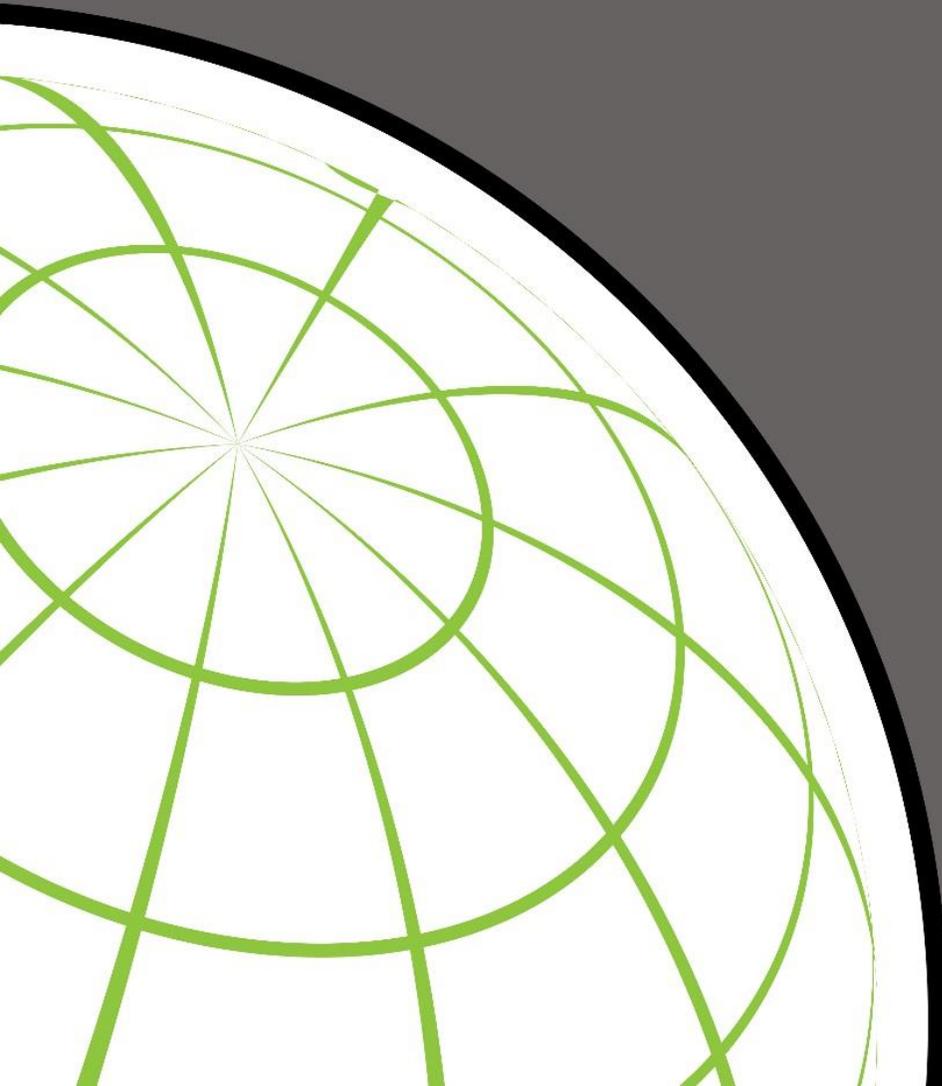


CONNECT ■ COMPETE ■ GROW



2016

**GEOORGIA**  
**LOGISTICS**  
**SUMMIT**



**Roundtable 3e**  
**Next Generation Analytics  
for Supply Chains**



**Gene Long**  
National DCP



**Steve Ellet**  
Chainalytics



**Joe Dunlap**  
CBRE



**Vince Wan**  
UPS



**Darryl Forbes**  
UPS



**Manish Shah**  
Kanga



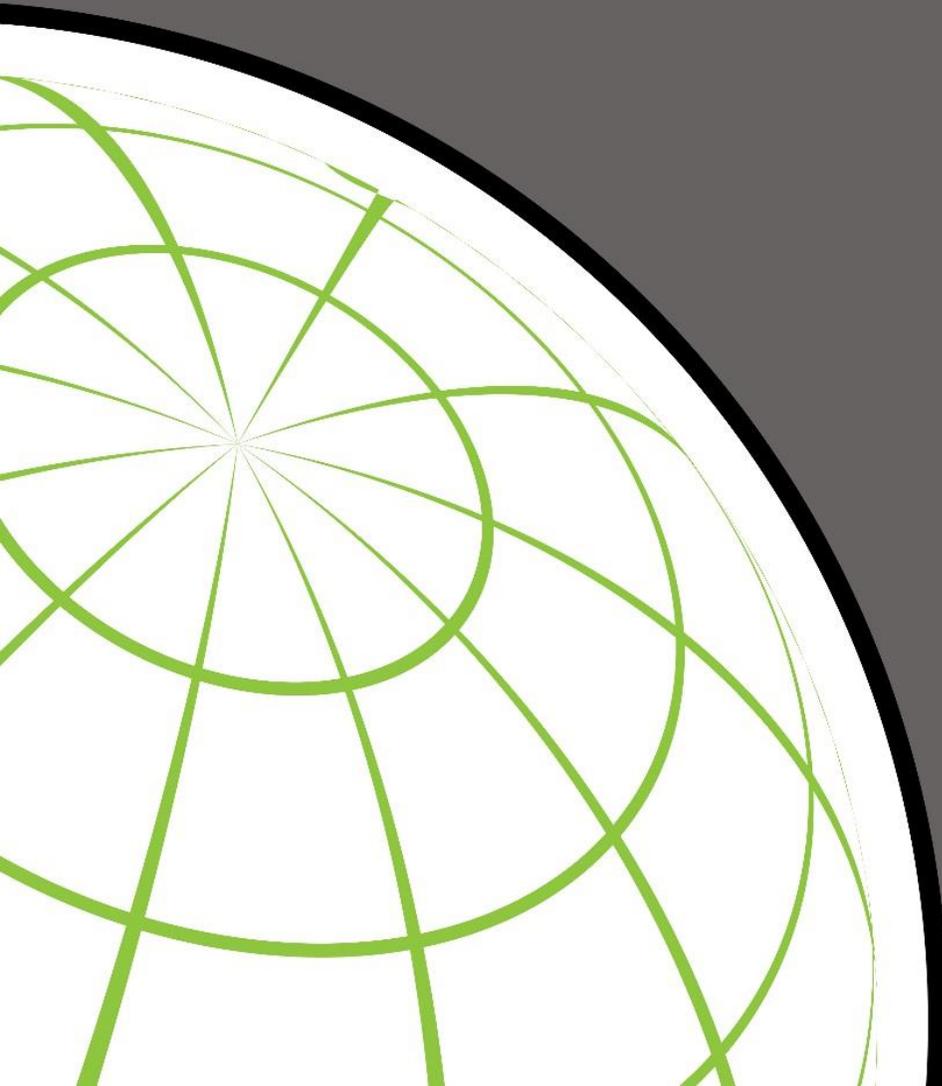
**Moe Trebuchon**  
Consultant



**Andrea Laliberte**  
Georgia Tech  
MODERATOR



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2016

**GEOORGIA**  
**LOGISTICS**  
**SUMMIT**

# Who is NDCP?

## Dunkin' Brands

- Franchisor of Dunkin' Donuts
- Responsible for quality control, marketing, R&D, etc.

## Dunkin' Donuts Franchisees

- Own and operate individual store locations
- Own the NDCP Cooperative

## NDCP

- Supply chain for Dunkin' Donuts
- Dunkin' Brands requires franchisees to purchase exclusively from NDCP

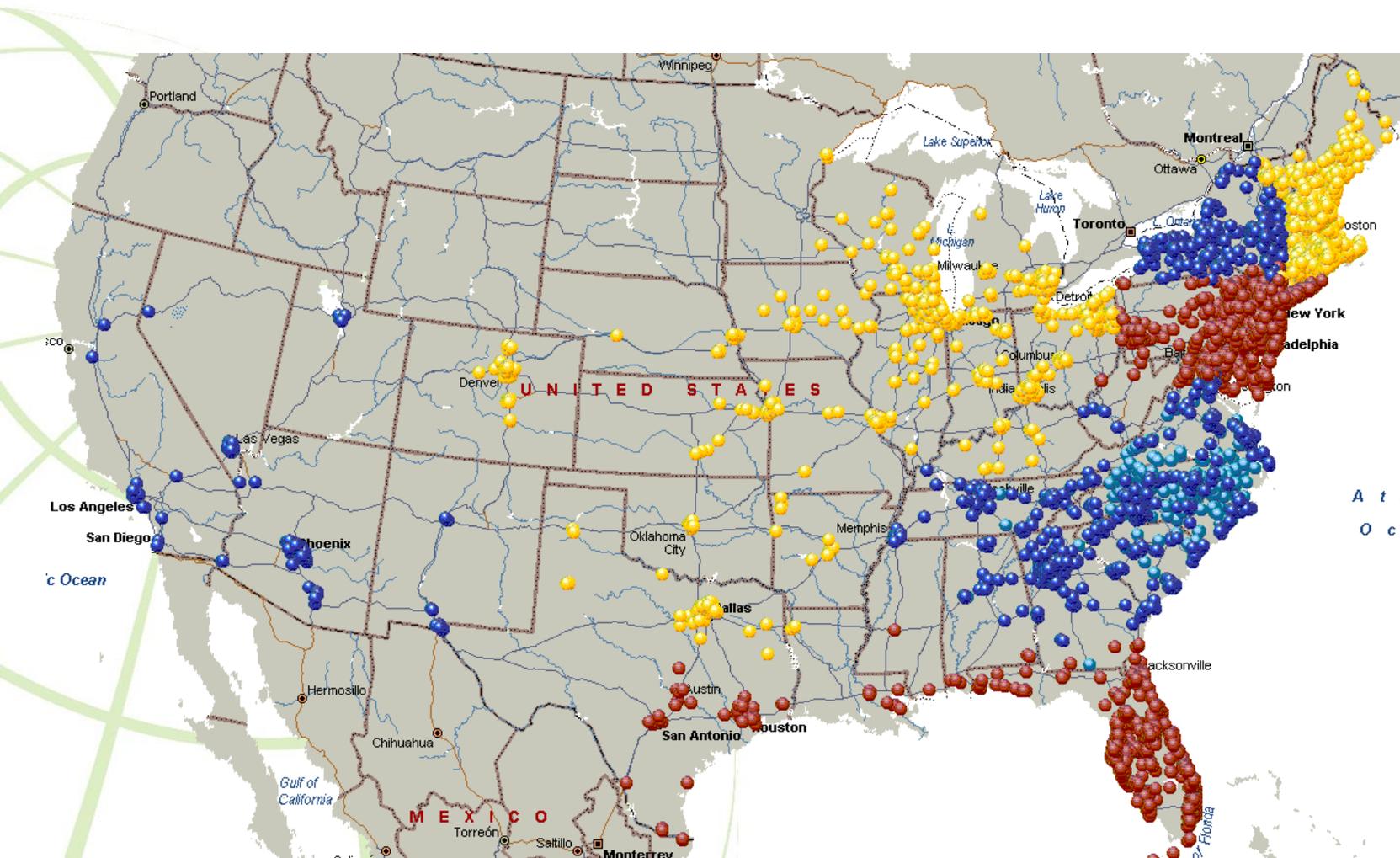


# What NDCP Does

If America runs on Dunkin, Dunkin' runs on National DCP (NDCP)

- A **\$2 billion supply chain management company** serving Dunkin' franchisees
- Extensive distribution network that makes **625,000 deliveries** and **73 million cases** driving more than **28 million miles**
- NDCP was formed in **2012** after four regional cooperatives merged as one national cooperative
- Expertise in **sourcing, purchasing, distribution** and **business solutions**
- More than **8,900** quick service restaurants in **51** countries
- Saved members **\$200 million** over the past three years
- Winner of the **2015 Supply Chain Pioneer** from Partnership Gwinnett

# NDCP's U.S. Supply Chain Network



## Buildings

7 Centers  
32 Logistics Hubs

## Equipment

335 Tractors  
405 Trailers

## People

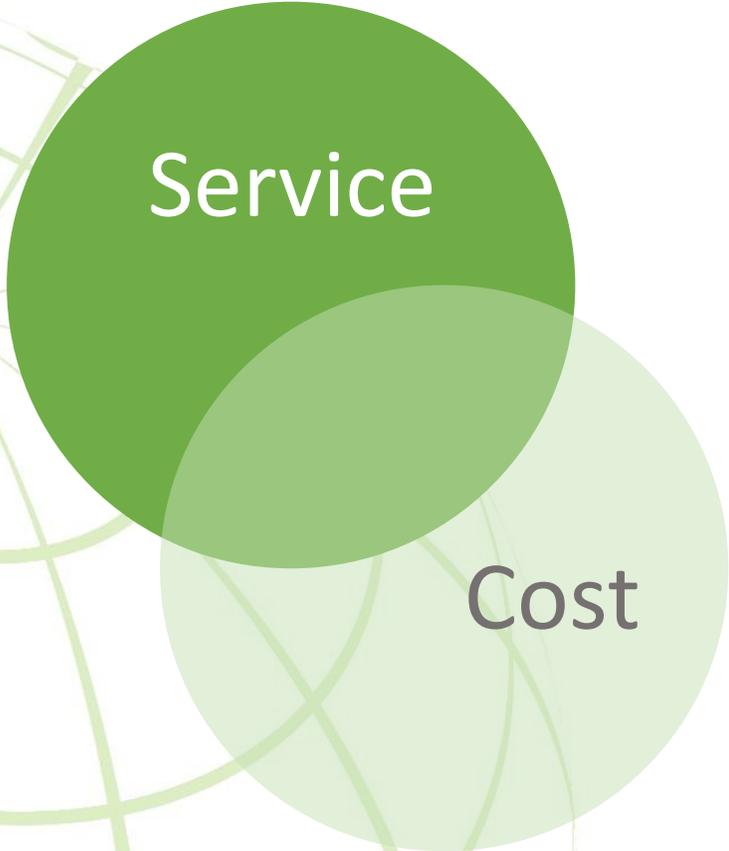
514 Warehouse  
775 Transportation  
40 Member Services  
18 Headquarters

# Supply Chain Growth & Change



- More than **7,000** US stores
- Adding over **400** new stores per year
- Individual market growth up to **36%**
- Balancing **customer service** and **operating cost** in a **constantly changing environment** prompted partnership with Chainalytics

# Key Questions

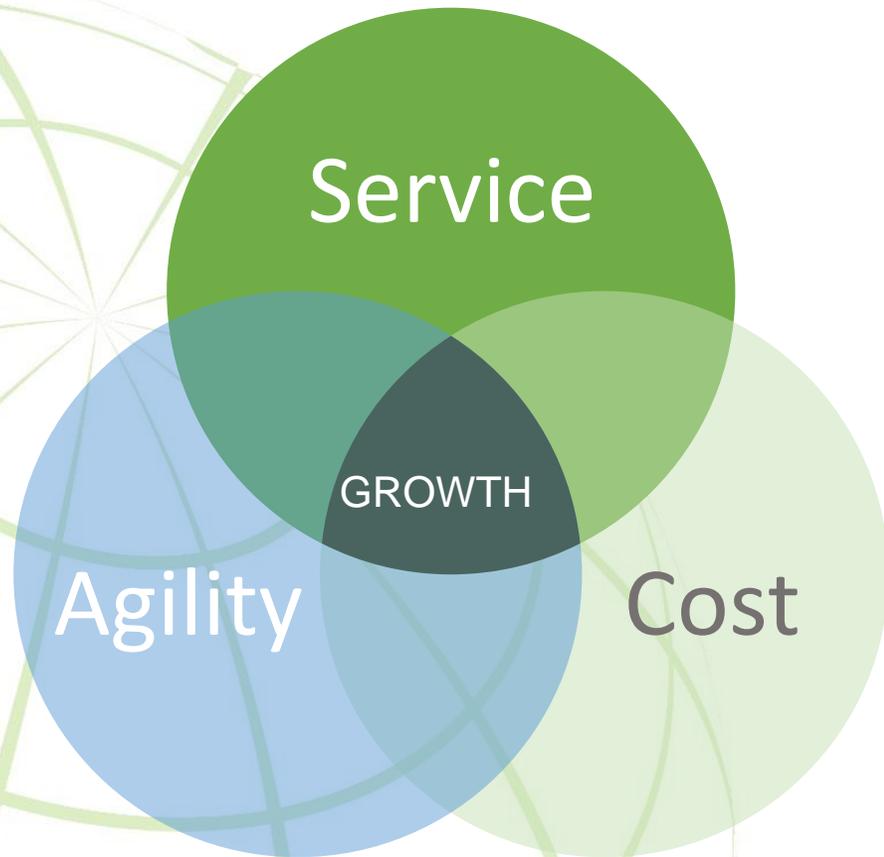


Service

Cost

- How many distribution centers should be in the network?
- What should be the size/capacity of each?
- Where should each DC be located?
- Which facilities should support which markets?

# Key Questions



- Should any existing locations be expanded, contracted, moved or closed?
- When should facility transitions be made, based on
  - Savings opportunities,
  - Growth targets,
  - Lease obligations,
  - and capacity considerations?

# Project Findings



**Increase** the number of **DCs**

- Additional DCs in established and emerging markets



Average DC to store distance **decreased 10%**



Annual operating cost reduction %: **high single digits**



Average DC volume **decreases**

# Who is Chainalytics? ■ CONNECT ■ COMPETE ■ GROW



of Gartner's **TOP 25** supply chains

of the **FORTUNE 500**

TOP 10



TOP 10



TOP 10



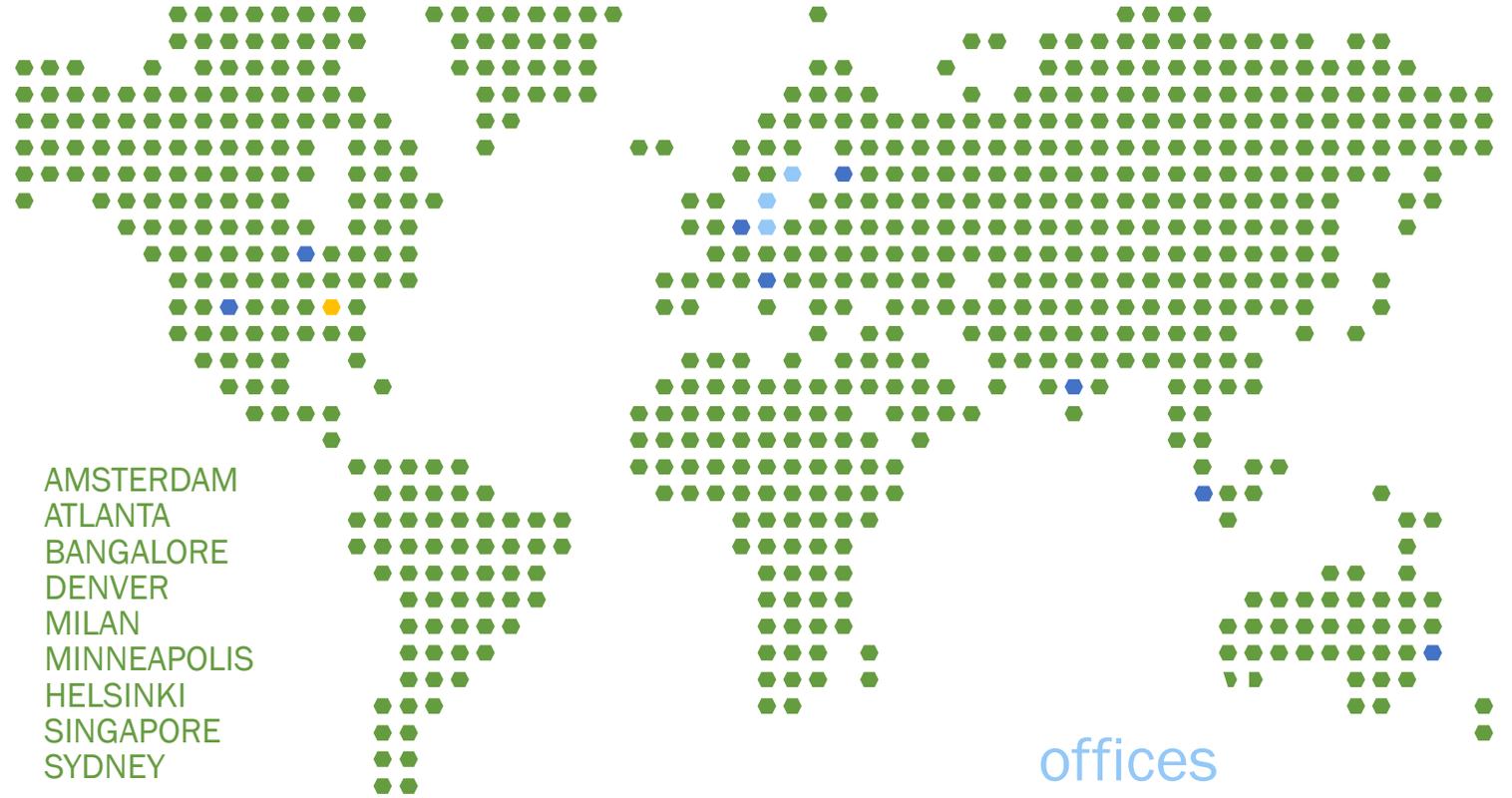
FREIGHT SPEND CAPTURED IN

**FMIC**

**CAGR** since 2009



AMSTERDAM  
ATLANTA  
BANGALORE  
DENVER  
MILAN  
MINNEAPOLIS  
HELSINKI  
SINGAPORE  
SYDNEY



offices

**PROS TO KNOW**

Supply & Demand Chain Executive



2013

Gartner **COOL**

in supply chain services

# Key Components

## Creating *investment-grade* confidence

- Cross-functional team (*including Executives*)
- Proven methodologies and tools
- High-quality input data (*Historical & Design*)
- Ongoing, sustainable process

# Data Requirements

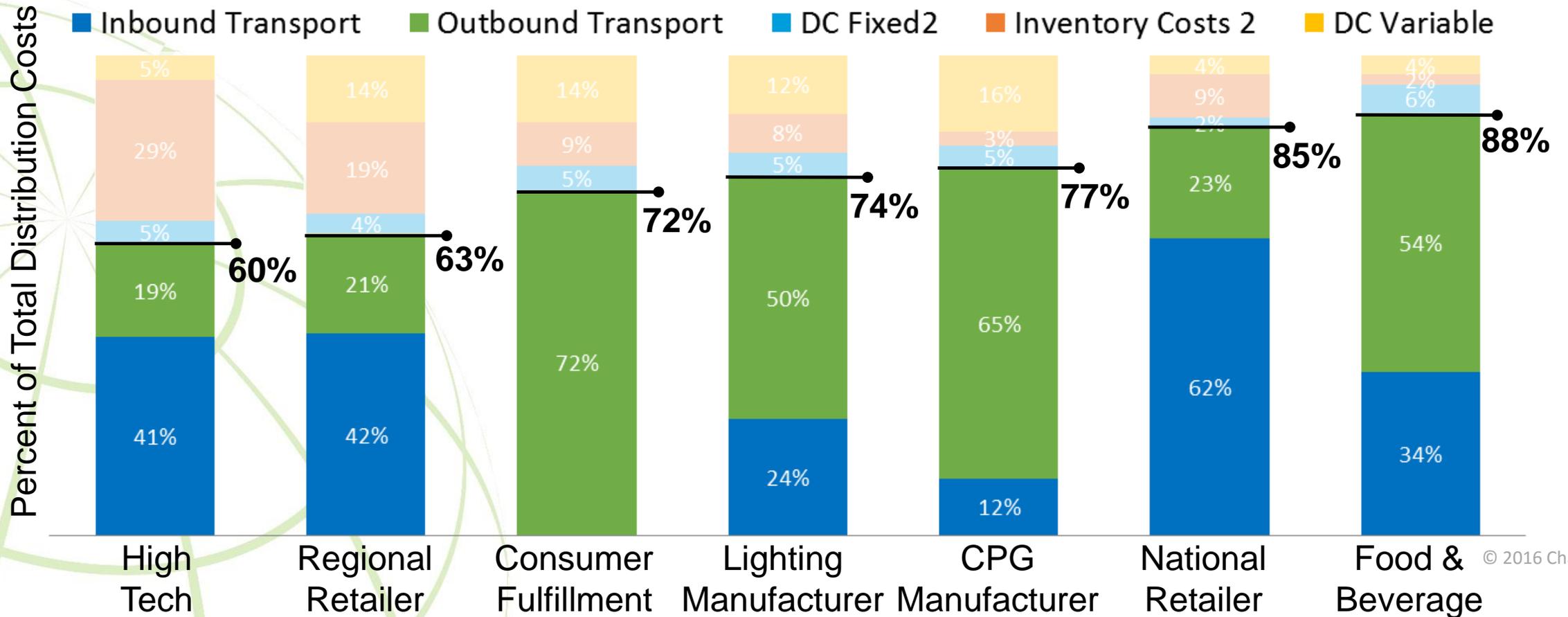
## Historical Data

- Access
- Acquisition
- Cleansing
- Validation
- Refresh Interval

## Design Data

- Freight Markets (FMIC)
- Real Estate (CBRE)
- Labor (CBRE)
- Utilities
- Taxes, Incentives

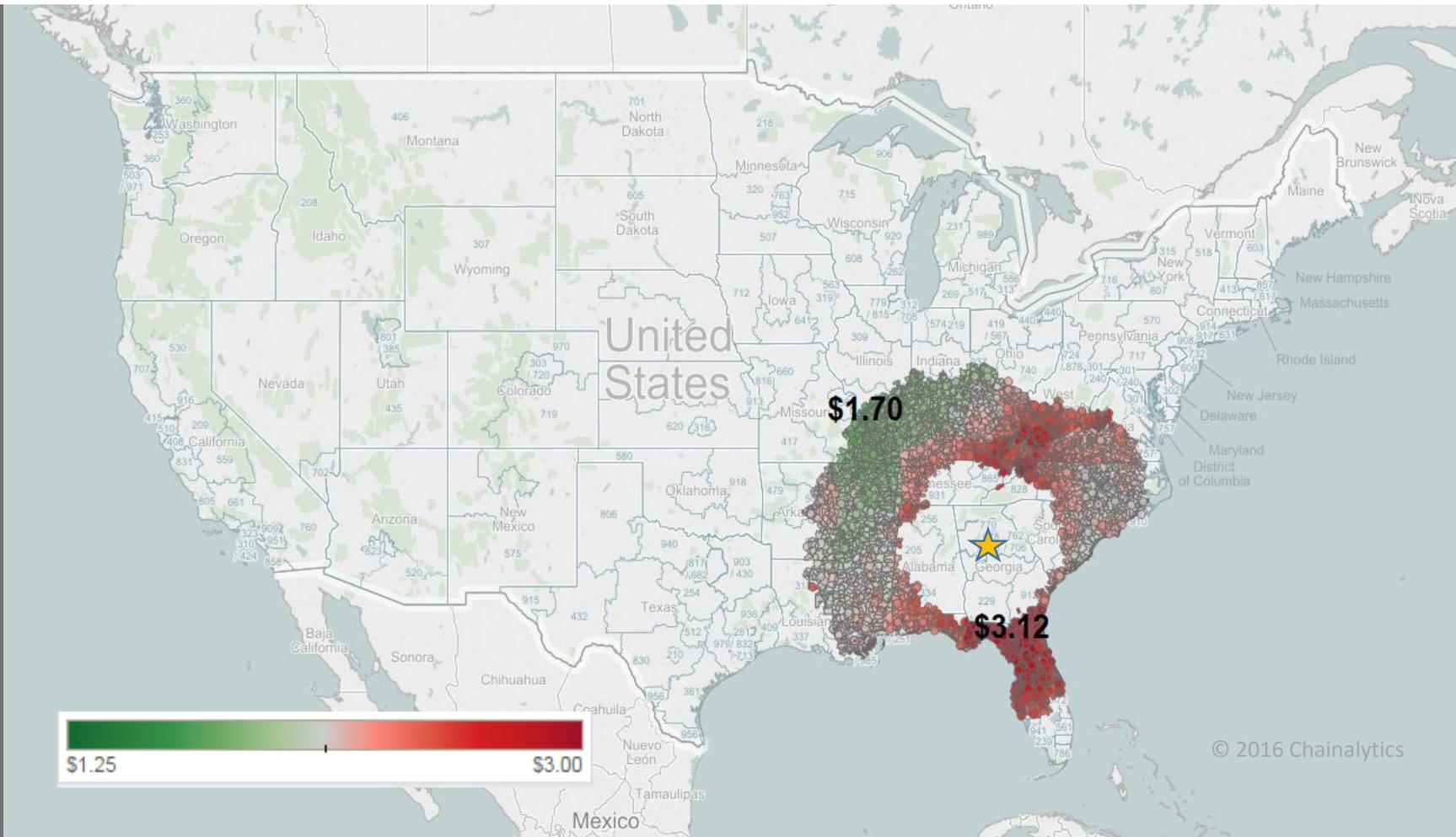
# Which costs drive a Supply Chain?



# Rate Per Mile: Atlanta Outbound Markets

**1** DAY TRANSIT

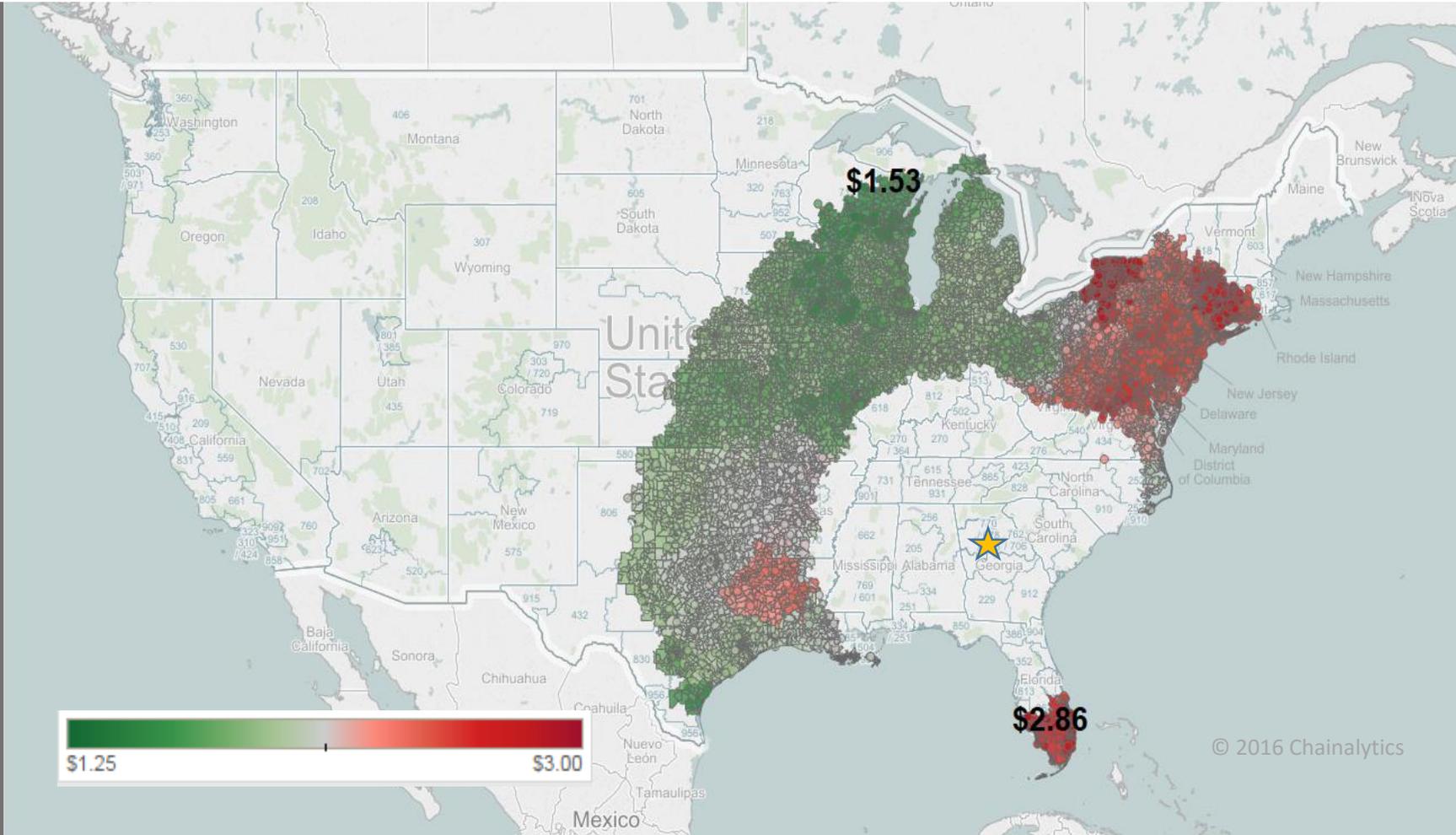
>250 Miles,  
DRY VAN



# Rate Per Mile: Atlanta Outbound Markets

**2** DAY TRANSIT

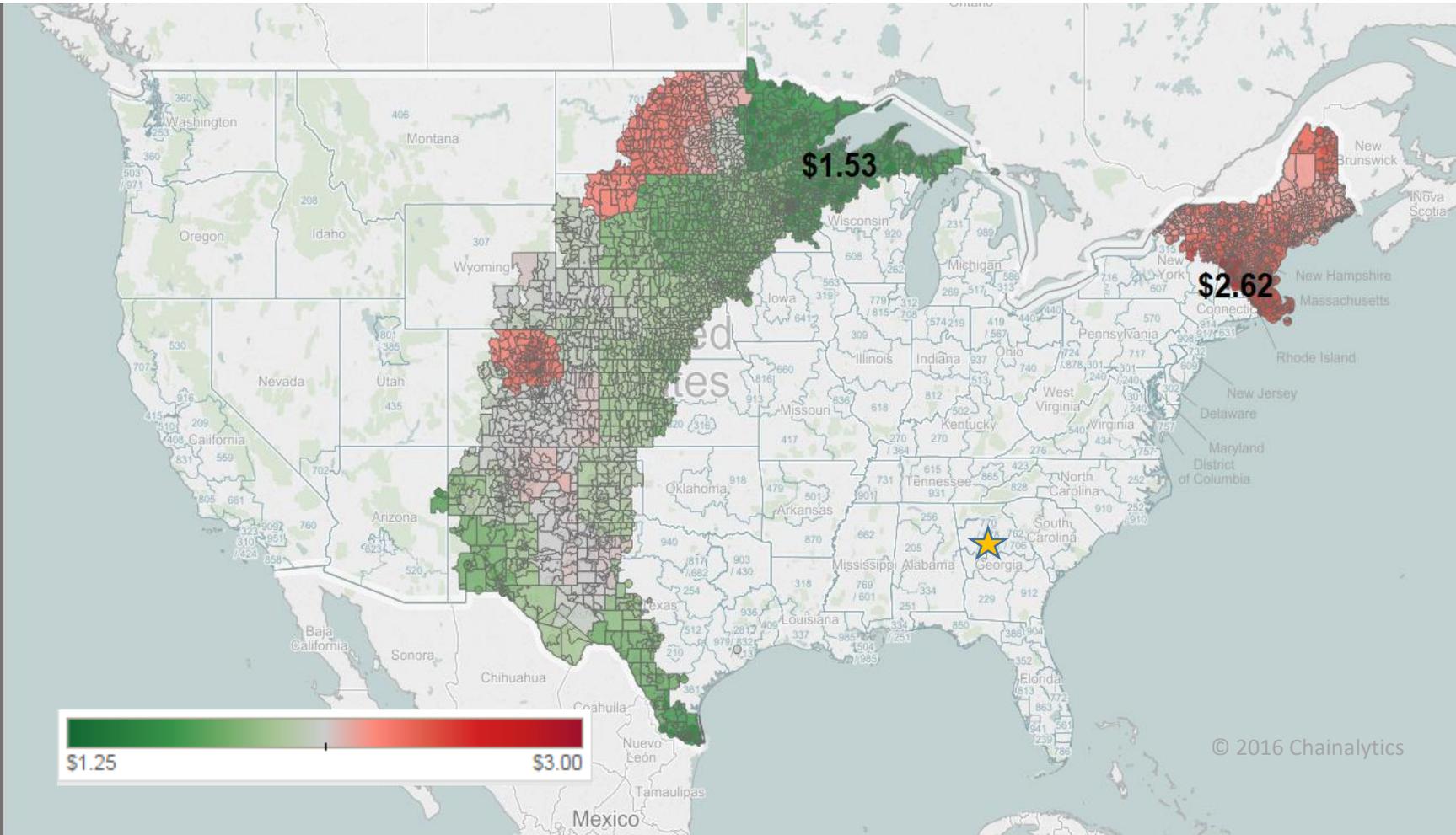
>250 Miles,  
DRY VAN



# Rate Per Mile: Atlanta Outbound Markets

**3** DAY TRANSIT

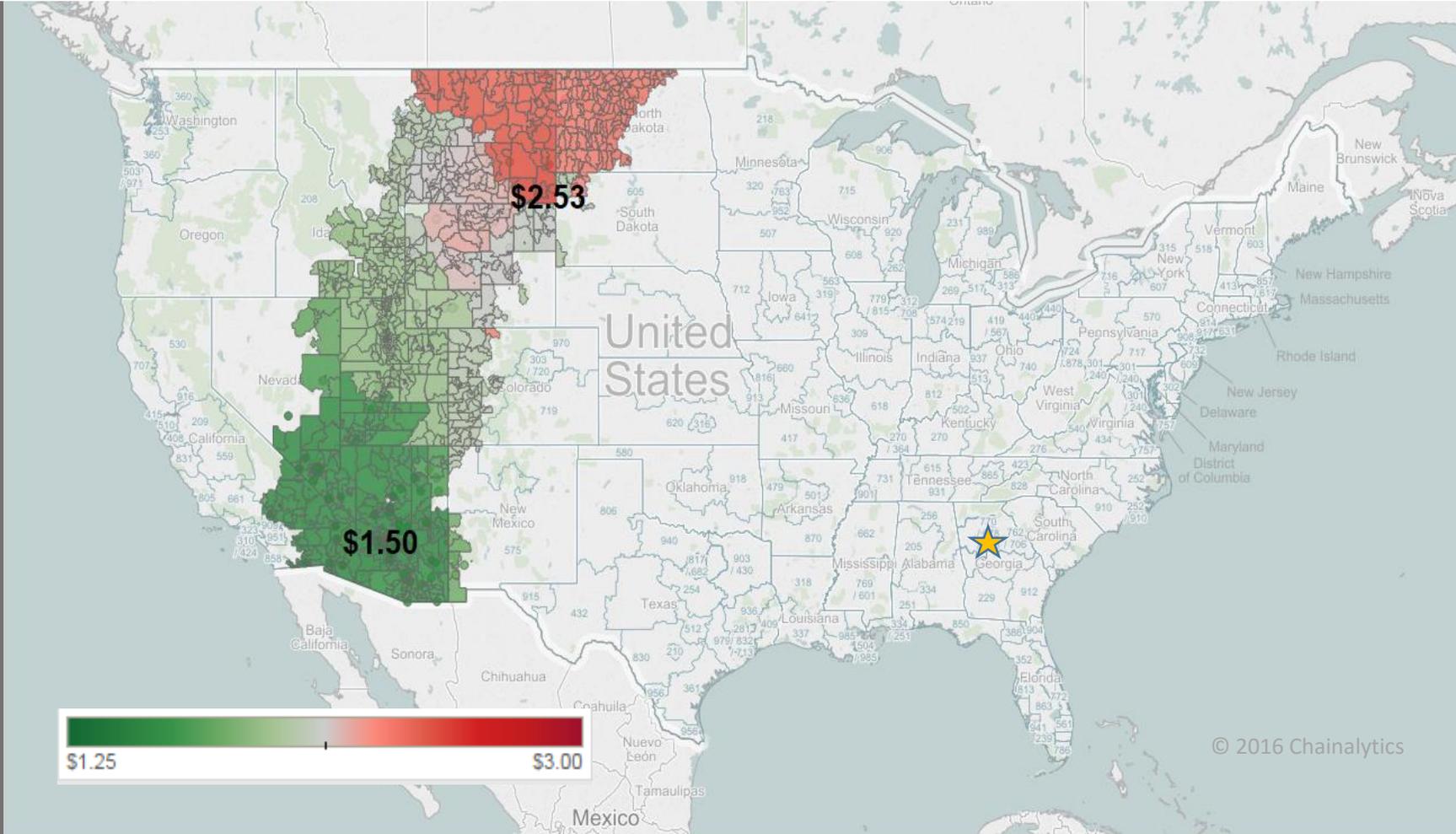
>250 Miles,  
DRY VAN



# Rate Per Mile: Atlanta Outbound Markets

**4** DAY TRANSIT

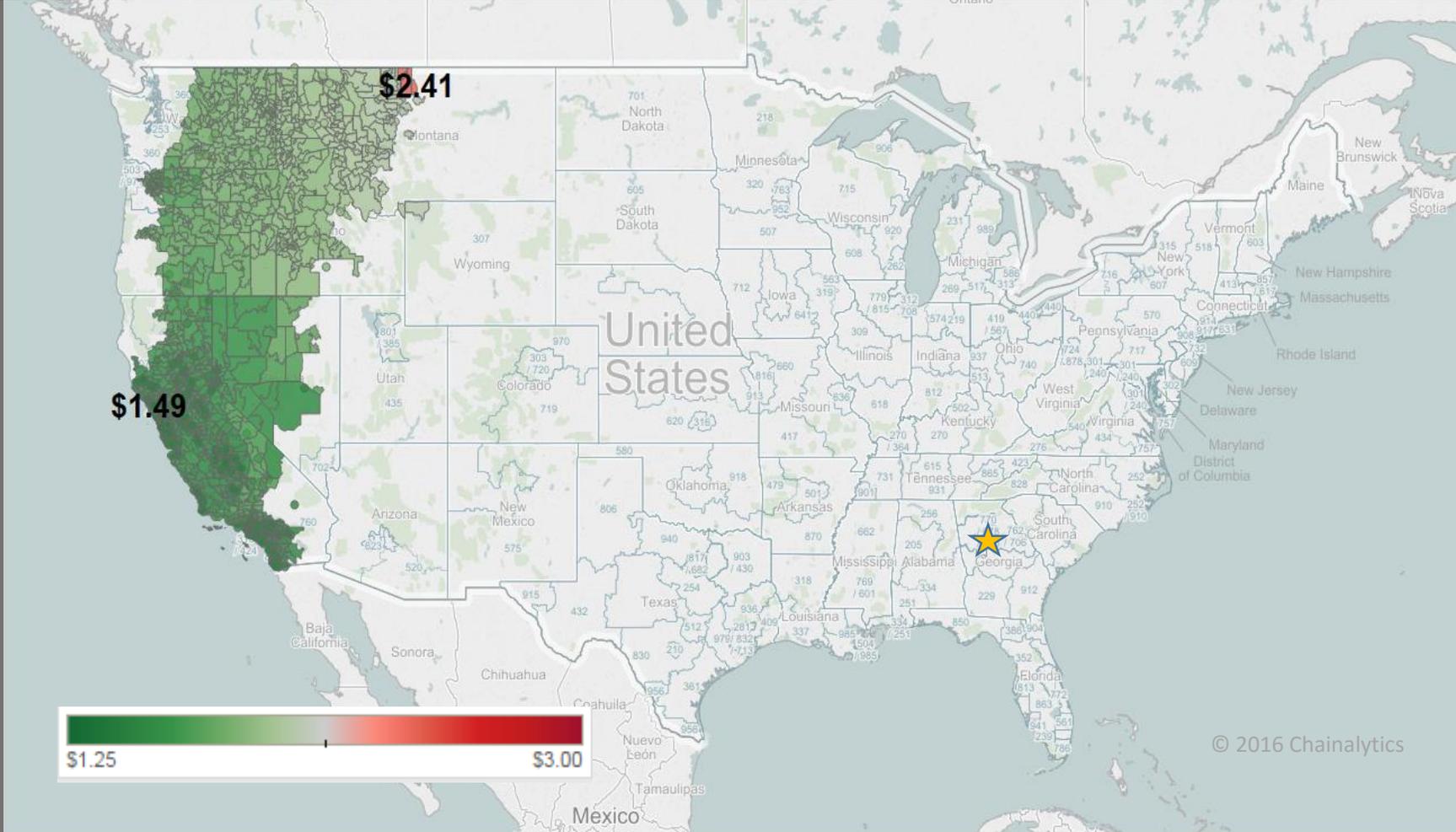
>250 Miles,  
DRY VAN



# Rate Per Mile: Atlanta Outbound Markets

**5** DAY TRANSIT

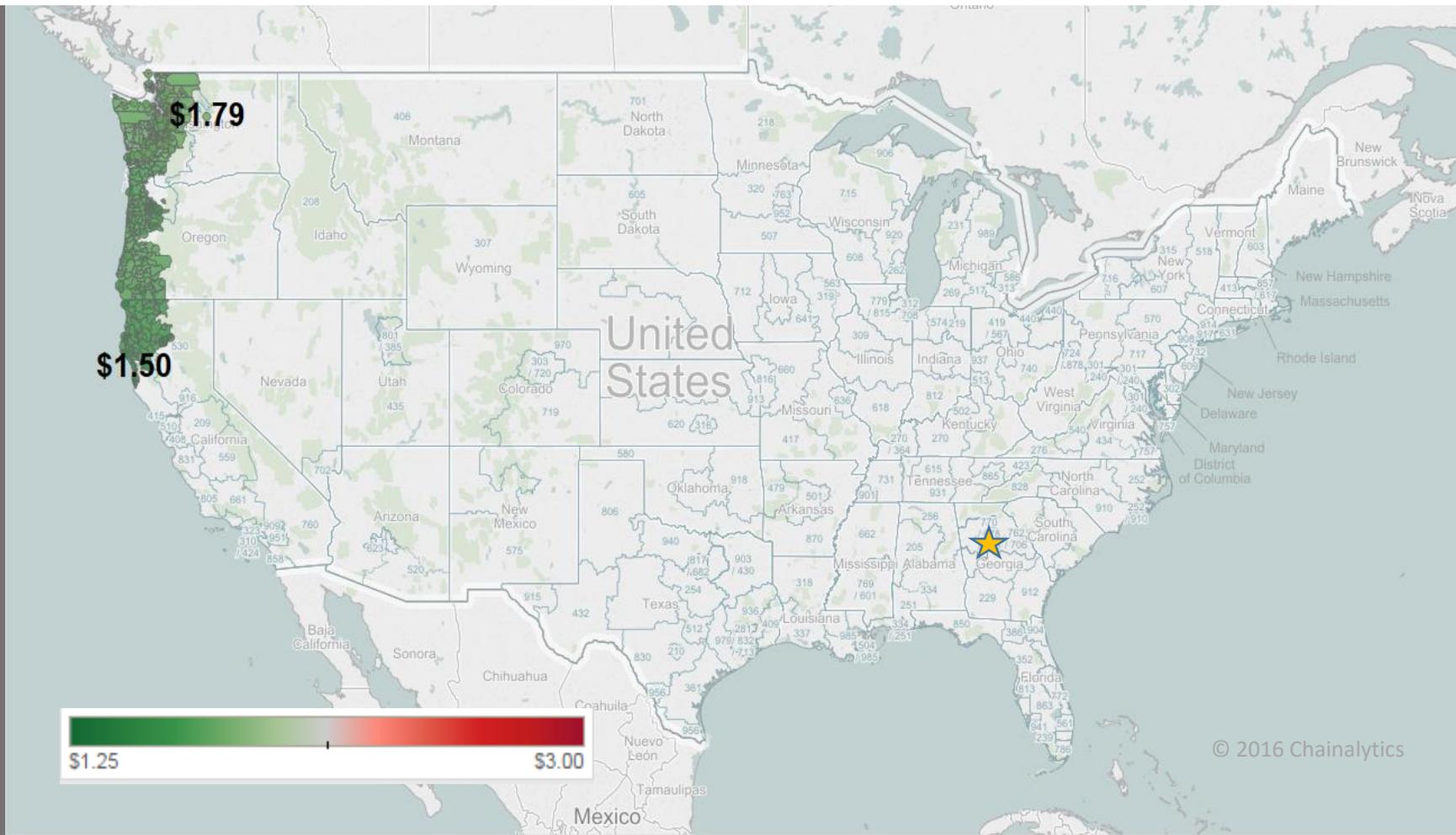
>250 Miles,  
DRY VAN



## Rate Per Mile: Atlanta Outbound Markets

**6** DAY TRANSIT

>250 Miles,  
DRY VAN



## CURRENT STATE

Category	Situation
<b>Data Sources</b>	Custom Extraction
<b>Analytical Capabilities</b>	Non Core
<b>One Source of Truth</b>	Unreliable/Non-Existent
<b>Analyses Executed</b>	Periodic
<b>Analytical Infrastructure</b>	Disparate
<b>Value Potential</b>	Acceptable
<b>Knowledge Transfer</b>	Inconsistent

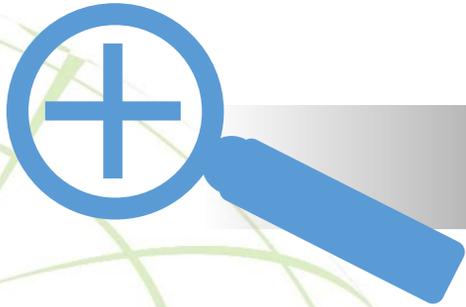
- Long duration to complete analyses
- Partial analyses resulting in suboptimal results
- Missed opportunities
- Limited internal resources qualified to execute analyses
- Analyses needed never start due to lack of resources
- Invalid or inaccurate data used in analyses
- Inconsistent confirmation of results by stakeholders

## FUTURE STATE

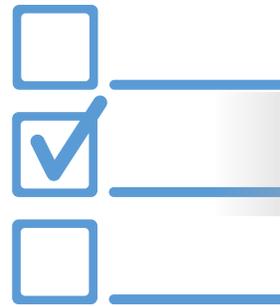
Category	Situation
<b>Data Sources</b>	Controlled Access
<b>Analytical Capabilities</b>	Core Competency
<b>One Source of Truth</b>	Always Present
<b>Analyses Executed</b>	Routine
<b>Analytical Infrastructure</b>	Centralized
<b>Value Potential</b>	Enhanced
<b>Knowledge Transfer</b>	Continuous

- Accelerated Time to Value
- Improved Fidelity and Objectivity of Results
- Incremental Improvement Opportunities

# The work is just beginning....

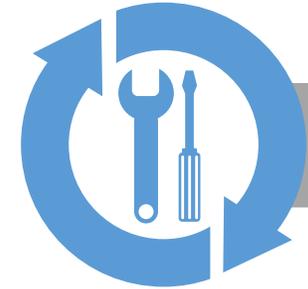
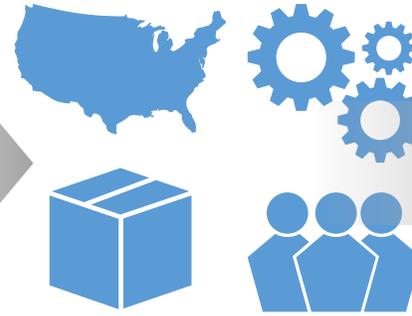


Due diligence to vet the study findings



Detailed implementation plan development

- Real Estate
- Systems
- Inventory Policies
- People/Processes



Ongoing adjustments

Ongoing capability

# Lessons Learned

- Attaining network design benefits is an ongoing management activity
- Establish a regular forum to discuss transformational Supply Chain activities with key executive stakeholders
  - Network Optimization Steering Committee formed
  - Portray Network Evolution for Executive Team
- Assign adequately skilled senior resources to roll-out management

# THANK YOU



**Gene Long**  
Chief Operations  
Officer



[gene.long@natdcp.com](mailto:gene.long@natdcp.com)



**Steve Ellet**  
Vice President,  
Supply Chain Design



[sellet@chainalytics.com](mailto:sellet@chainalytics.com)

# QUESTIONS & ANSWERS

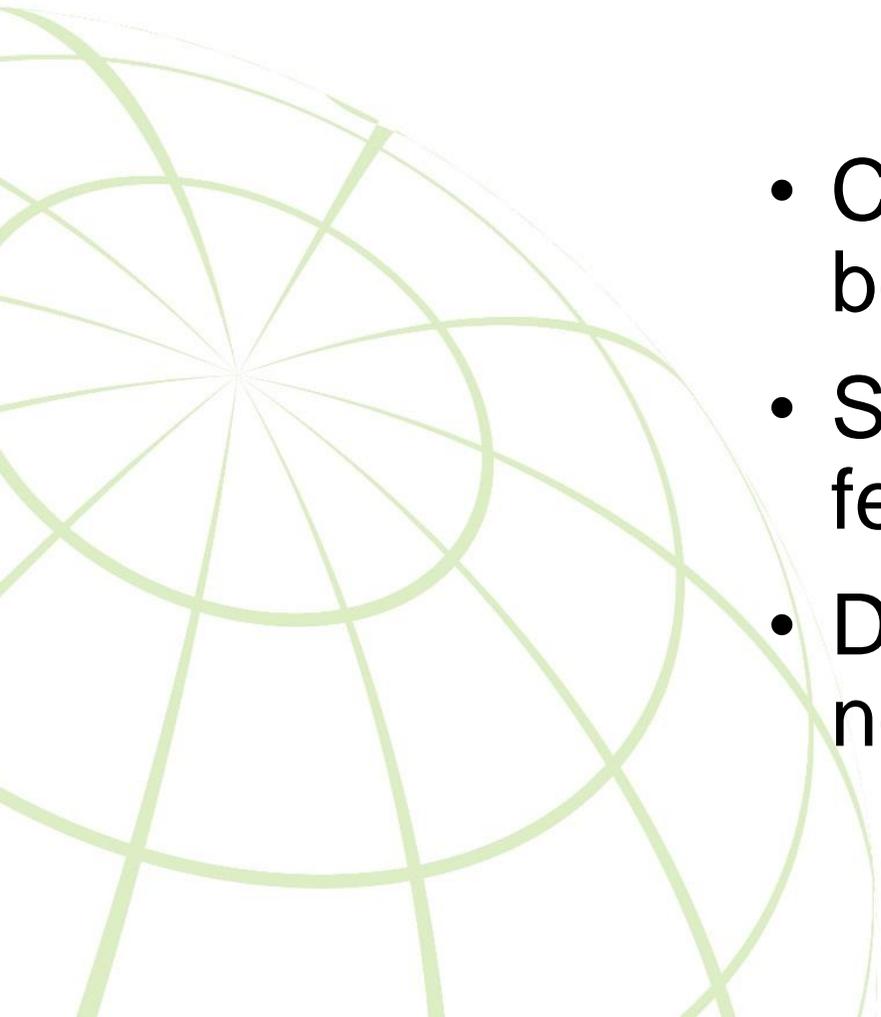
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**Joe Dunlap**  
CBRE

# CBRE POV

- Context and use-case for data analytics must be defined – what are you trying to solve
- Some data sources will remain proprietary or fee-basis
- Detailed, always-on, big data is not always necessary





**Darryl Forbes**

UPS



**Vince Wan**

UPS

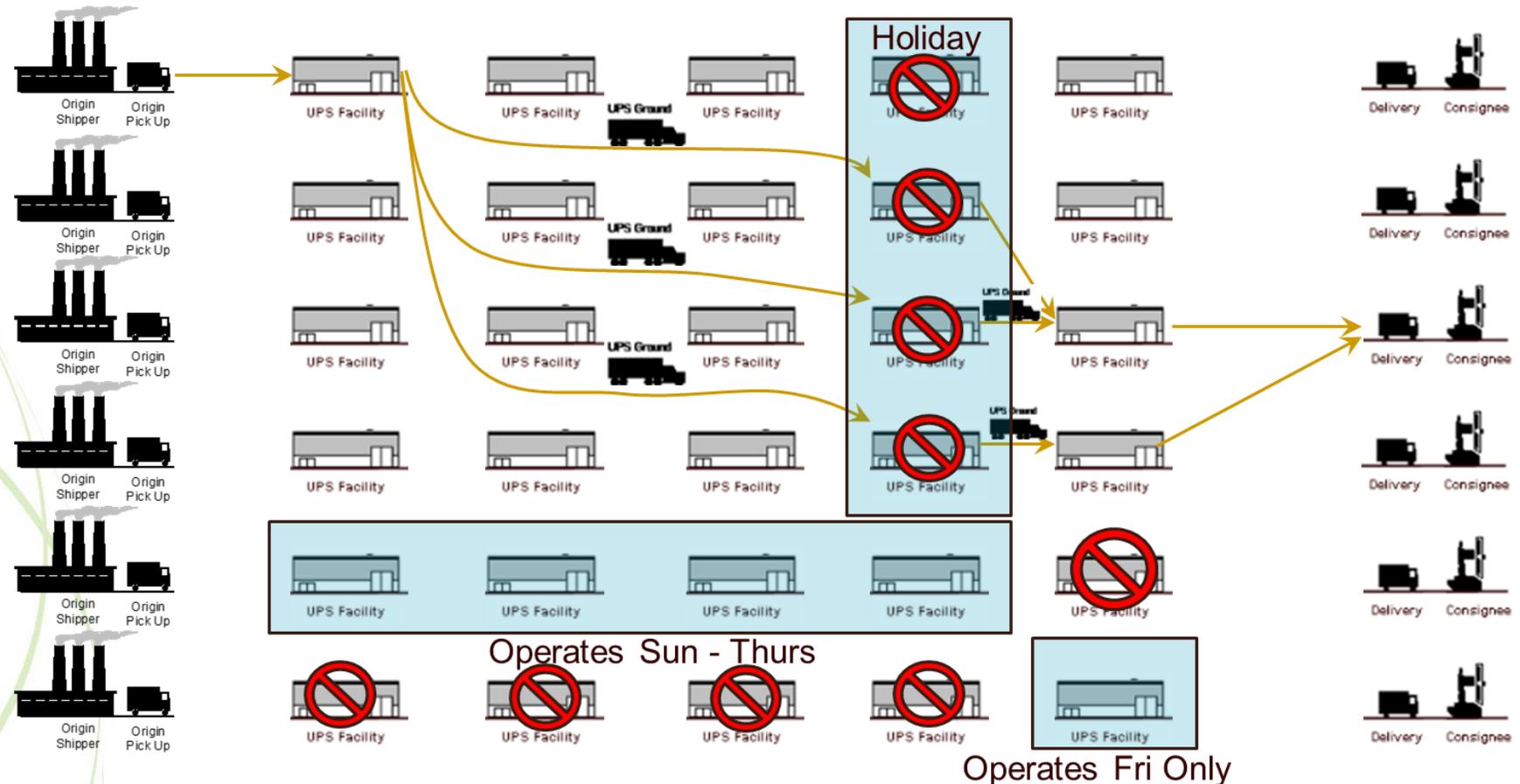
- UPS, long regarded as the leading provider of small package delivery, now has aggressively expanded freight and other transportation solutions through a series of strategic acquisitions. One of the latest addition to this portfolio includes LTL and truckload freight services, which complements UPS's global capabilities to provide customers a single source for multiple modes of transportation.
- Service Coverage:
  - United States (all 50 states) and all of Canada
  - Mexico: 600 points and all major cities
  - Puerto Rico, U.S. Virgin Islands, Guam
  - More than 20,000 one- and two-day lanes
- Network Infrastructure:
  - 200-plus North American facilities
  - 22,100 trailers
  - 6,700 tractors

# UPS Freight

## Dynamic Line-haul Planning and Dispatch

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Optimize freight shipment's routing from origin to destination through UPS network and where along the way it is transferred from one trailer to another for both weekly planning and near real-time dispatching.



*Kamga*



Manish Shah  
CEO

- Strategy & Analytics with Delta Air Lines and IHG
- 10+ years of Management Consulting
- Successful startup exit with Decision Street



# The challenge of delivery & DATA

“Coca-Cola has the second largest fleet in the world after the US Postal Service”

Steve Saltzgiver, North America Fleet Management,  
Coca-Cola Enterprises

“An event left my Holiday Inn short on Coke products, but unfortunately we couldn’t get any Delivered same-day”

Karim Kassam, General Manager,  
Holiday Inn Albuquerque



2<sup>nd</sup> Largest Fleet on Earth



No company has truly solved last-mile, on-demand local delivery

Problem: You accidentally took your spouse's keys to work and they need them ASAP!

Challenge: How would you solve this?

**Problem 1**





# Last minute delivery still makes you wait

STEP 2 OF 4. CHOOSE YOUR DELIVERY ADDRESS & DATE

Delivery Details

< Aug 28 - Sep 3 >

	FRI 28	SAT 29	SUN 30	MON 31
Morning 07:00 - 12:00	\$59.99	\$59.99	\$59.99	\$59.99
Afternoon 12:00 - 4:00	\$59.99	\$59.99		\$59.99
Evening 4:00 - 7:00	\$59.99	\$59.99	\$59.99	\$59.99

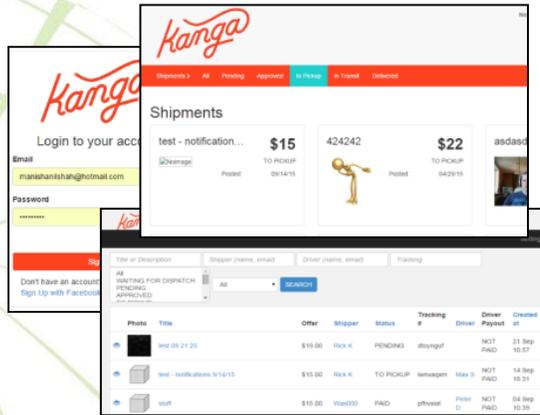
most local deliveries hold their customers Captive



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# Kanga Developed THE UBER for delivery platform to manage local deliveries

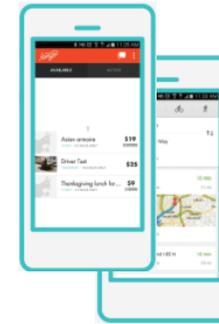
## HQ View



- Fleet and Driver Dispatch
- Administrative Dashboards
- Data, Analytics, and Insights

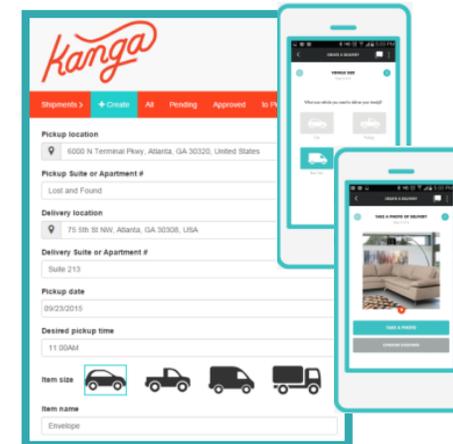


## Driver App



- Driver onboarding
- Customer chat
- Geo-mapping

## Customer Site & App

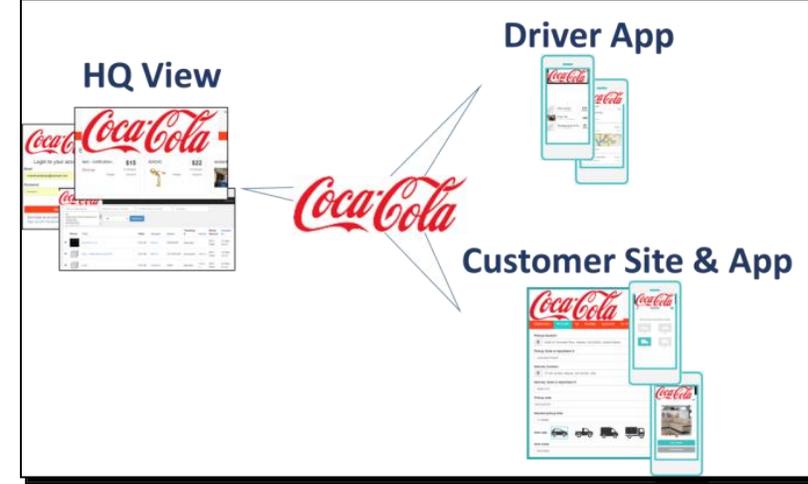
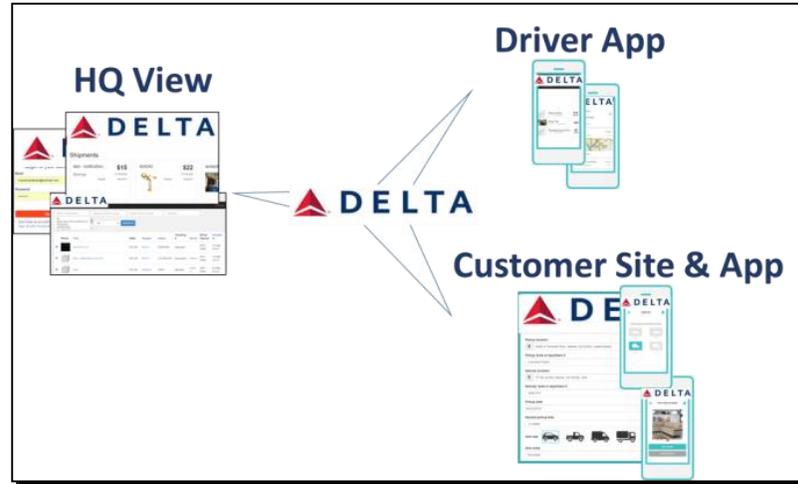
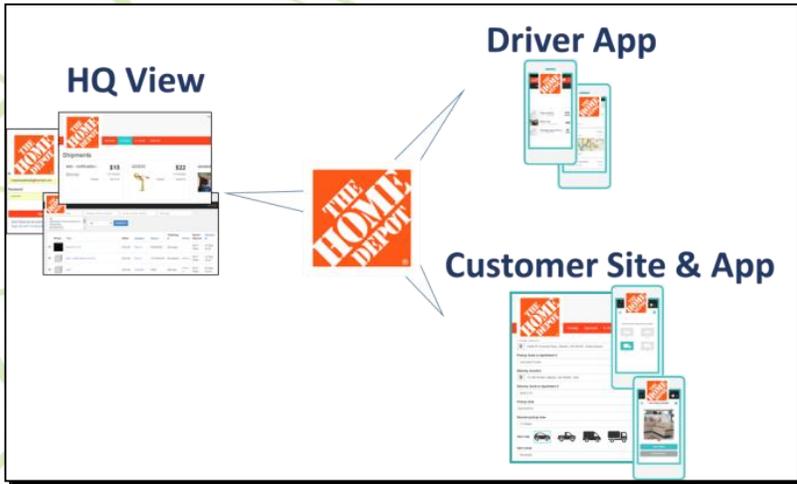


- Orders
- Driver chat
- Payments



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# Kanga realized SaaS is more valuable than Delivery-as-a-Service



**White-Labeled Kanga Platform For Enterprises**



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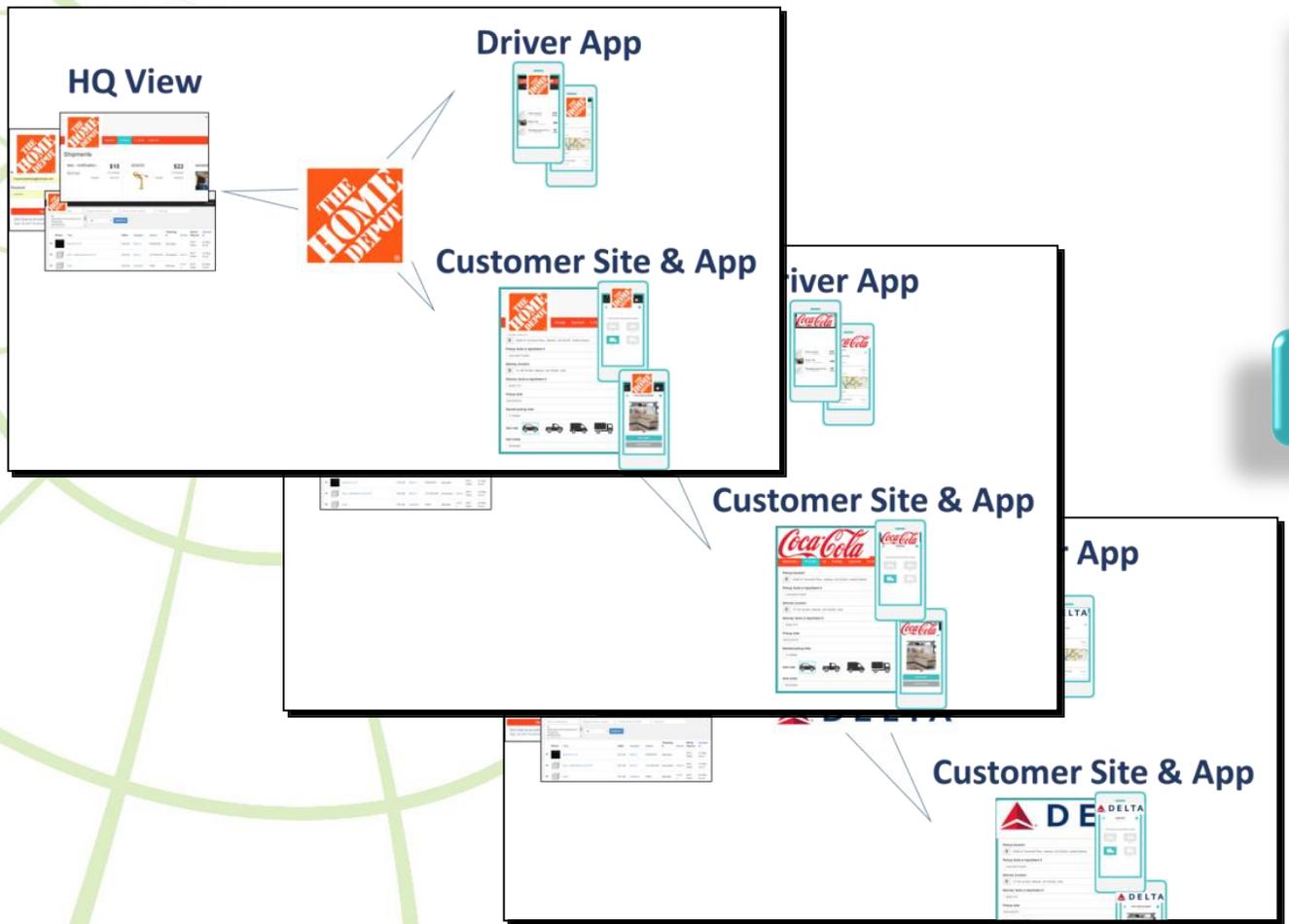
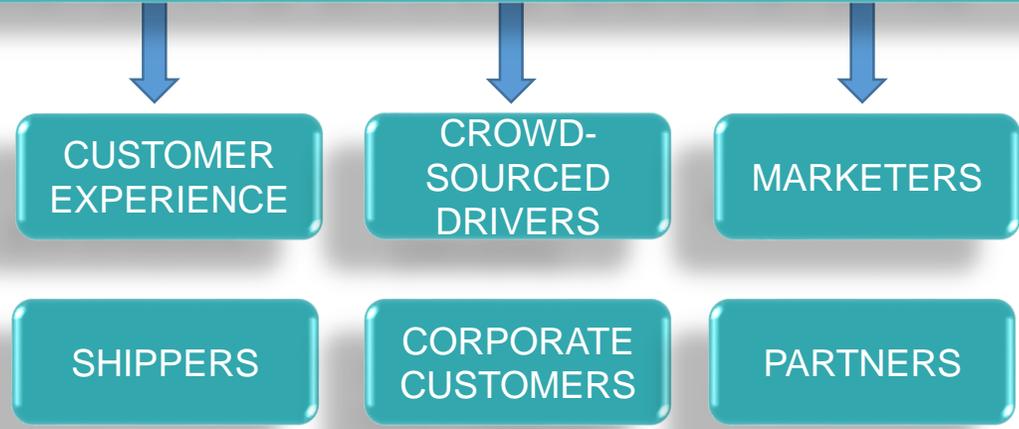
# Kanga's NEXT GENERATION DATA IS MORE VALUABLE THAN ITS SOFTWARE

## Deliveries Create VALUABLE Data:

- Delivery Status Changes
- Photography
- Product Placement
- Customer Demographics
- Customer Preferences
- Geo Data
- Shipment
- Sensors

- Account & Contact
- Transactions
- Activity
- Credit Card
- Returns
- Date / Time
- Crowd Sourced Behaviors
- AND MUCH MORE...

## INSIGHTS DRIVE DECISIONS

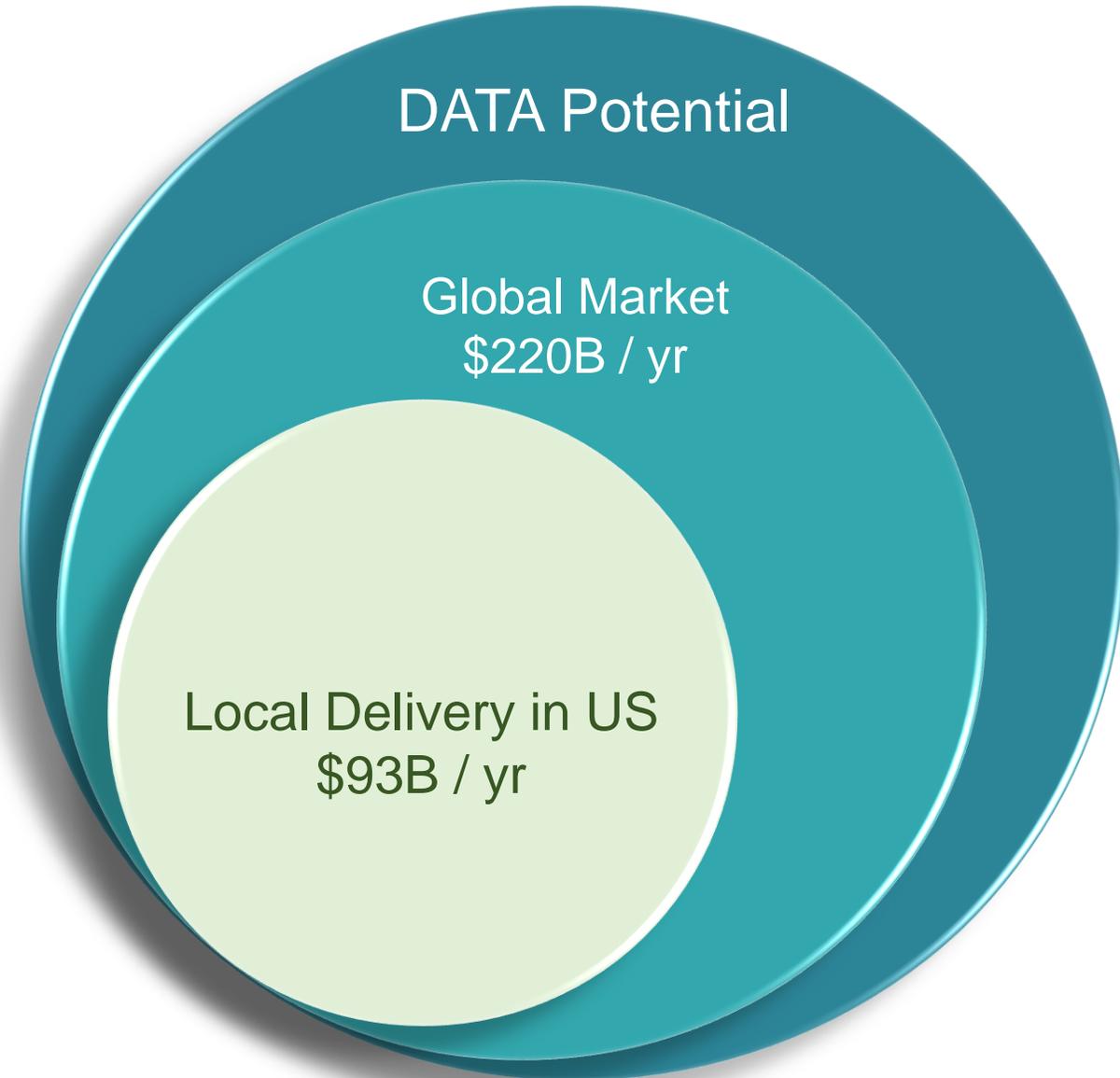




## LOCAL DELIVERY: A huge market POTENTIAL IF DATA IS HARVESTED

Local delivery, as we define it, is any item picked up & delivered within a 35 mile radius, and a less than 24 hour window.

- Growing 3.5% year over year
- Consumer demand is accelerated by new offerings
- INSIGHTS and DATA will grow the market





## A CASE STUDY

Kanga enables all local orders to be delivered using Kanga's driver network, driving down costs for Georgia Pacific and better serving their customers

### DATA INSIGHTS:

- Cost savings
- Time savings
- Efficiency
- Customer Experience
- DELIVERY PLACEMENTS – Blind Before



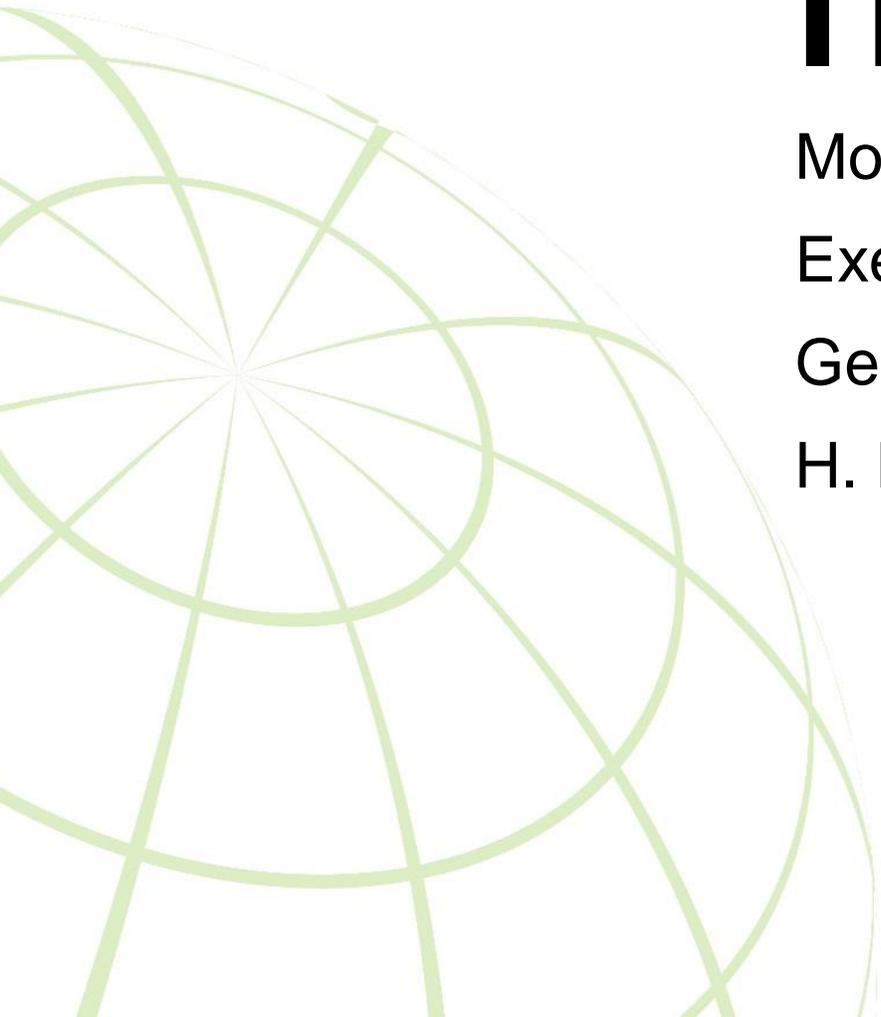
# Thoughts on the Future

Moe Trebuchon

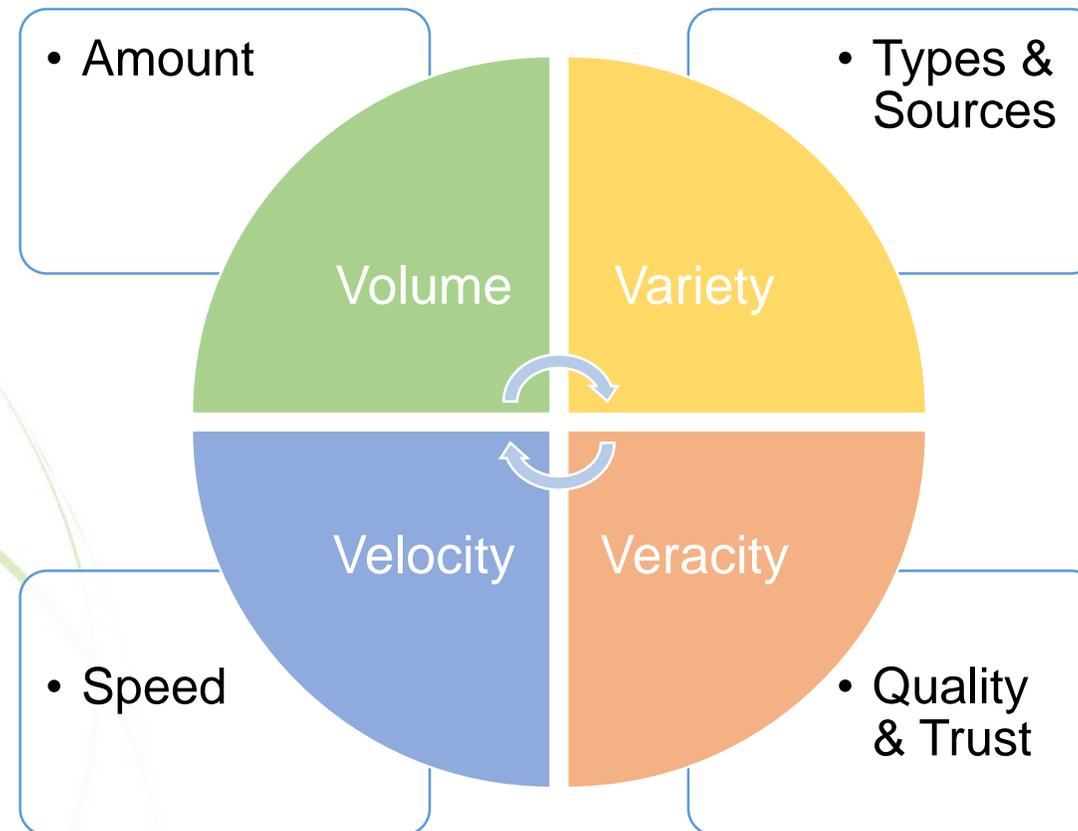
Executive In Residence

Georgia Institute of Technology

H. Milton Stewart School of Industrial & Systems Engineering



# The Four V's of Data





# Analytics Informed Execution



- In Memory Data Analytics
- Cognitive Computing

# Supply Chain Impacts

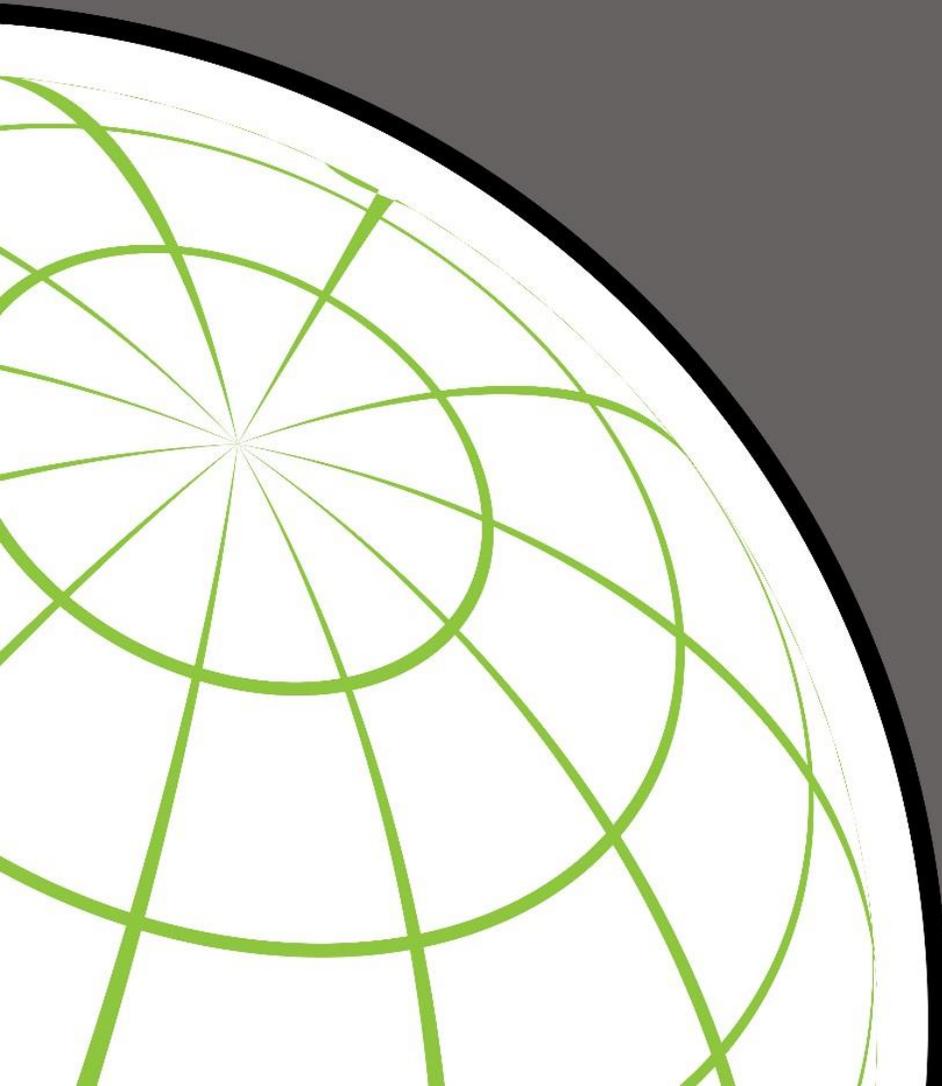
FROM	TO
1. Historical Demand Forecast	Social Sentiment Informed Demand Signal
2. Monthly & Weekly Planning Cycles	Event Based Response
3. Products Sold at Scale	Products Configured to Suit
4. Highly Specialized Supply Chains	Sell & Fulfill From Anywhere

# Agility Will Be Critical

- Flexible Fulfillment
- Value Added Services & Postponement
- Sense & Respond
- Intelligent & Predictive
- Transparent



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