Best Practices in Supply Chain: A Nucor Perspective

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Director of Logistics

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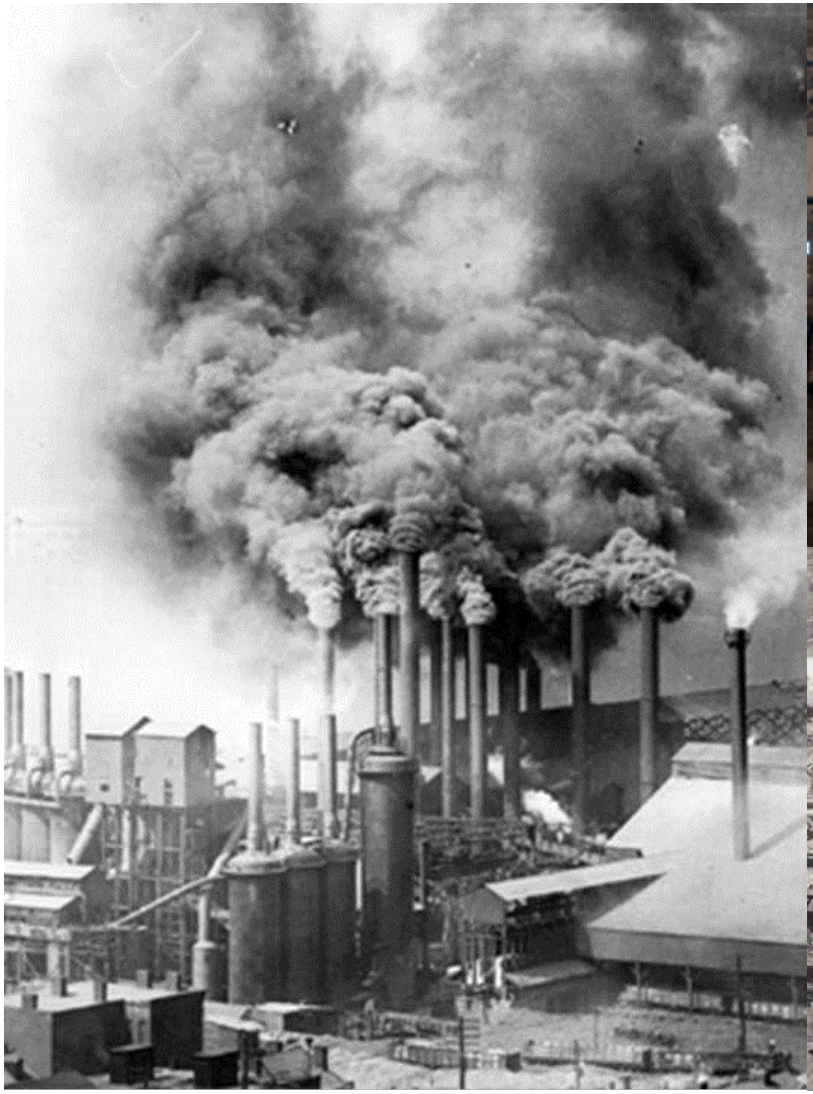
Discussion Outline

- Brief Introduction to Nucor
- Economic Climate and the Steel Business
- Best Practices in Supply Chain Execution

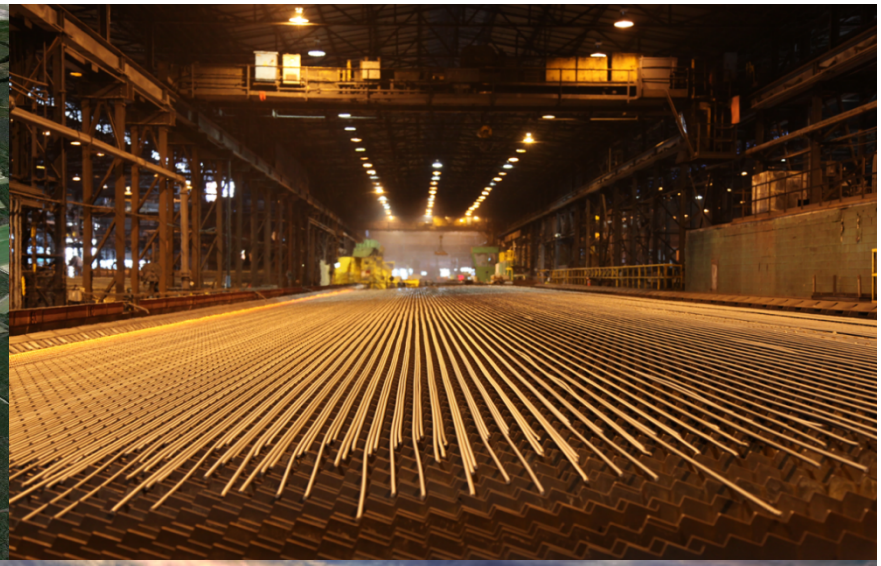
A BRIEF INTRODUCTION TO

Perception of Steel

Steel Mills of the Early 20th Century



Today's Steel Mill



The Nucor Story

- Nuclear Corporation of America, which would later become Nucor, first entered into the steel industry with the purchase of Vulcraft, making steel joists and girders.

Original Vulcraft facility in 1962

- Ken Iverson, Nucor's founder and president, decided to introduce "mini-mills" to the American steel industry to compete against traditional blast furnaces, and to supply Vulcraft with steel at a better price.

Nucor's first President, Ken Iverson

Nucor's Beginnings

- Nucor's beginnings are rooted in auto manufacturing dating back to the turn of the 20th century

Facilities	3
Annual Sales	$21 million
Fortune rank	Unranked
Employees	About 700
Sales per Employee	$30,000

Nucor Today

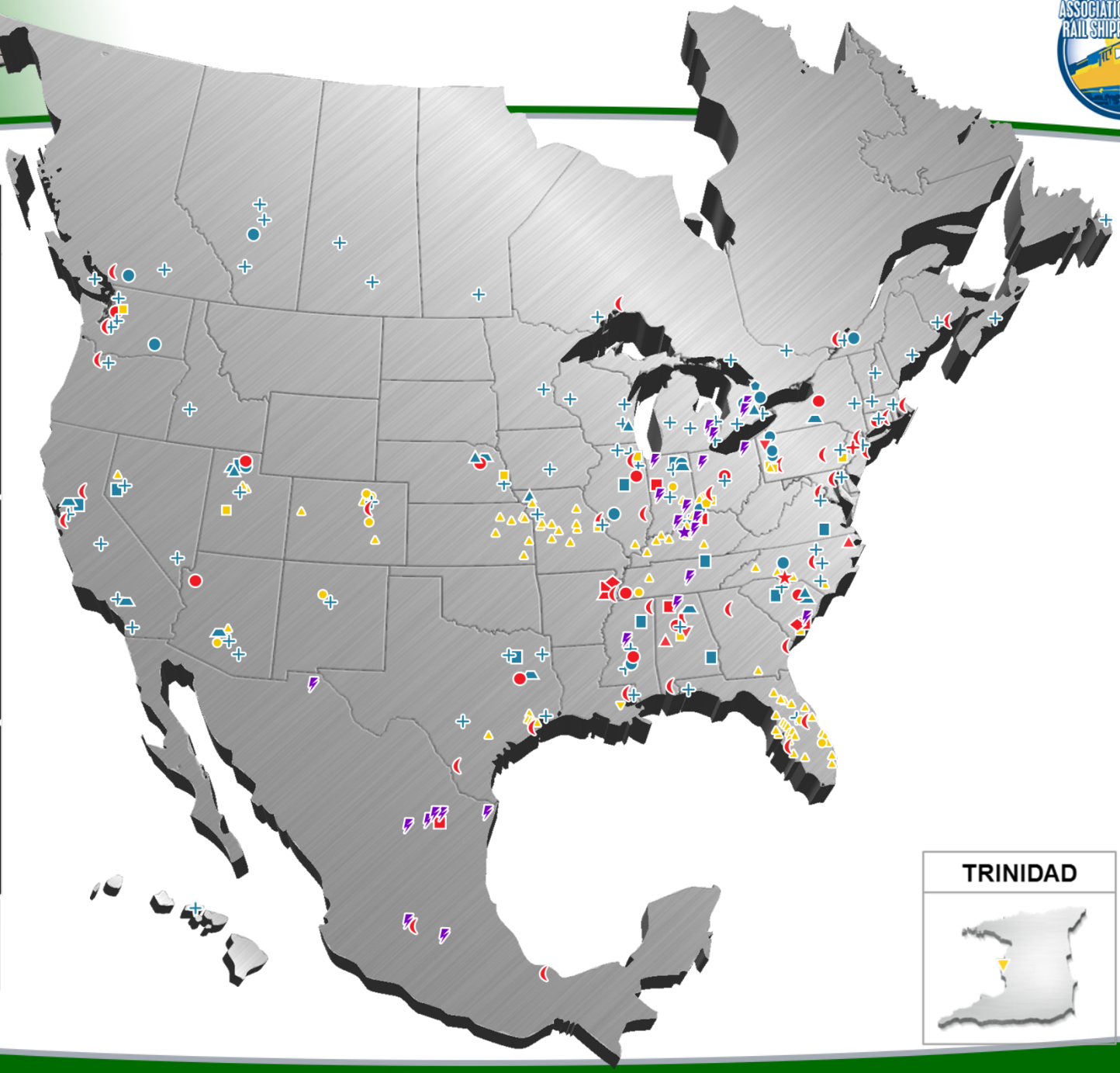
NORTH AMERICA'S MOST DIVERSIFIED STEEL & STEEL PRODUCTS COMPANY

FACILITIES	Over 200 locations
2015 NET SALES	$16.4 Billion
2015 NET EARNINGS	$357.7 Million
FORTUNE 500 RANKING	139
TEAMMATES	23,710
2015 SALES PER TEAMMATE	$690,000

171 CONSECUTIVE QUARTERS OF CASH DIVIDENDS THROUGH 4th QUARTER 2015

NUCOR

SOUTH EAST ASSOCIATION OF RAIL SHIPPERS



STEEL MILLS

- BAR MILLS
- SHEET MILLS
- CASTRIP® SHEET MILLS
- BEAM MILLS
- PLATE MILLS
- SKYLINE FACILITIES
- SKYLINE HEADQUARTERS
- ASTRALLOY FACILITIES
- NUCOR CORPORATE OFFICE

STEEL PRODUCTS

- REINFORCING PRODUCTS
- BUILDINGS GROUP
- VULCRAFT & VERCO
- COLD FINISH
- STEEL MESH, GRATING & FASTENERS
- HARRIS CORPORATE OFFICE

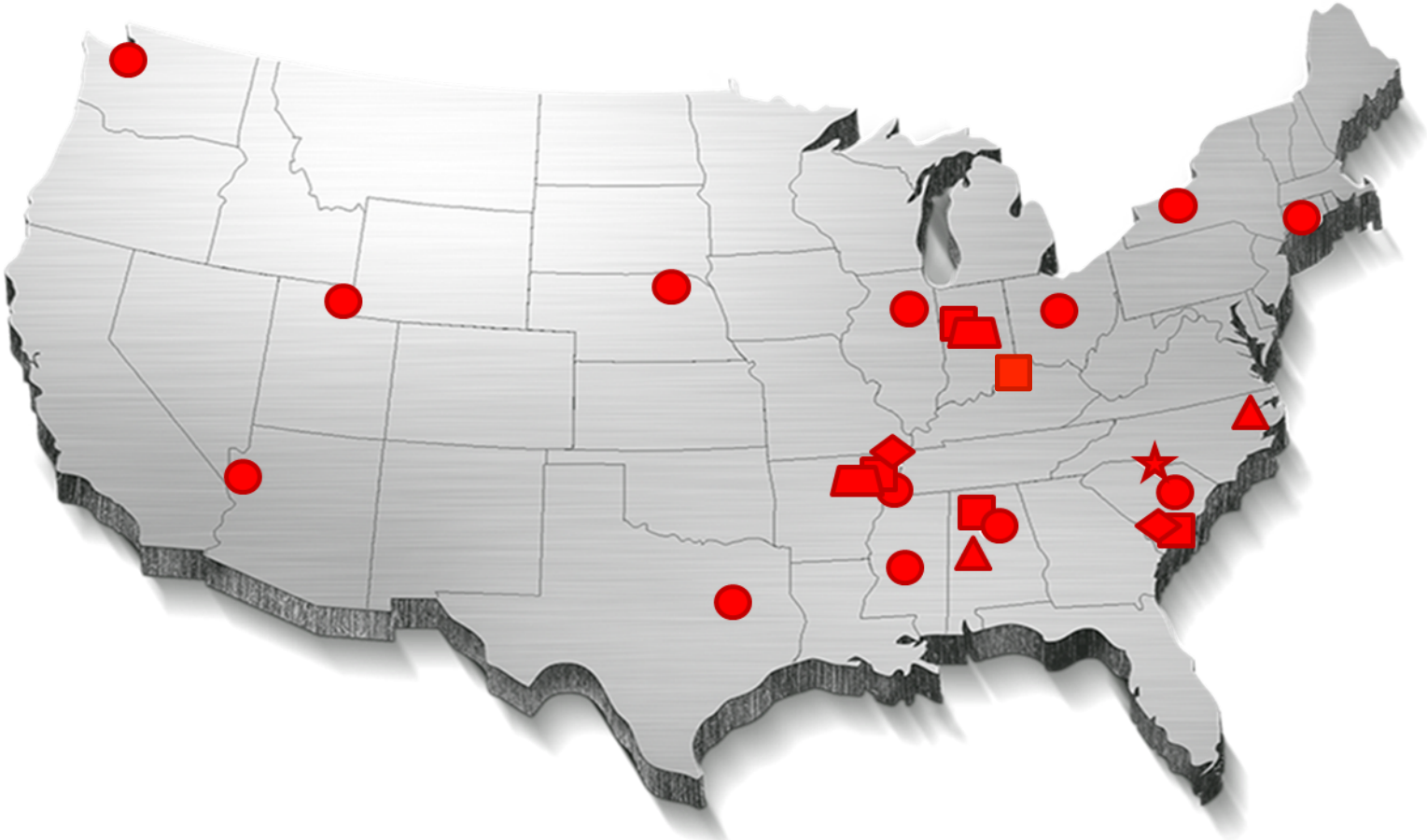
RAW MATERIALS

- SCRAP PROCESSING
- BROKERAGE OFFICES
- DRI PLANTS
- OTHER
- DJJ CORPORATE OFFICE

- STEEL TECHNOLOGIES
- STEEL TECHNOLOGIES CORPORATE OFFICE

TRINIDAD

Nucor Steel Mills



Bar Mills
Sheet Mills
Castrip® Mills
Beam Mills
Plate Mills
Nucor Corporate Office

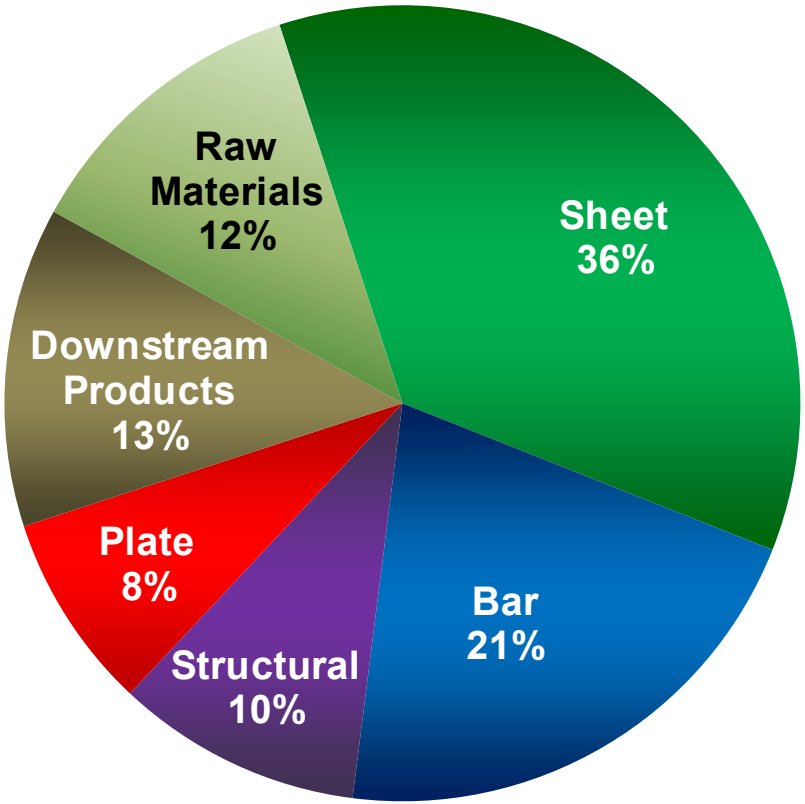
Nucor's Production Capacity

Annual Tons

Steel Mills	28.8 Million and Growing
Sheet, Bar, Structural, Plate	
Steel Products	4.6 Million and Growing
Steel Joists, Steel Deck, Cold Finish Bar, Bright Bar, Buildings Group, Rebar Fabrication, Steel Mesh, Grating, Fasteners	
Raw Materials (Iron Units)	9.7 Million and Growing
Direct Reduced Iron (DRI), Ferrous Scrap Processing	
TOTAL CAPACITY	**43.1 Million and Growing**

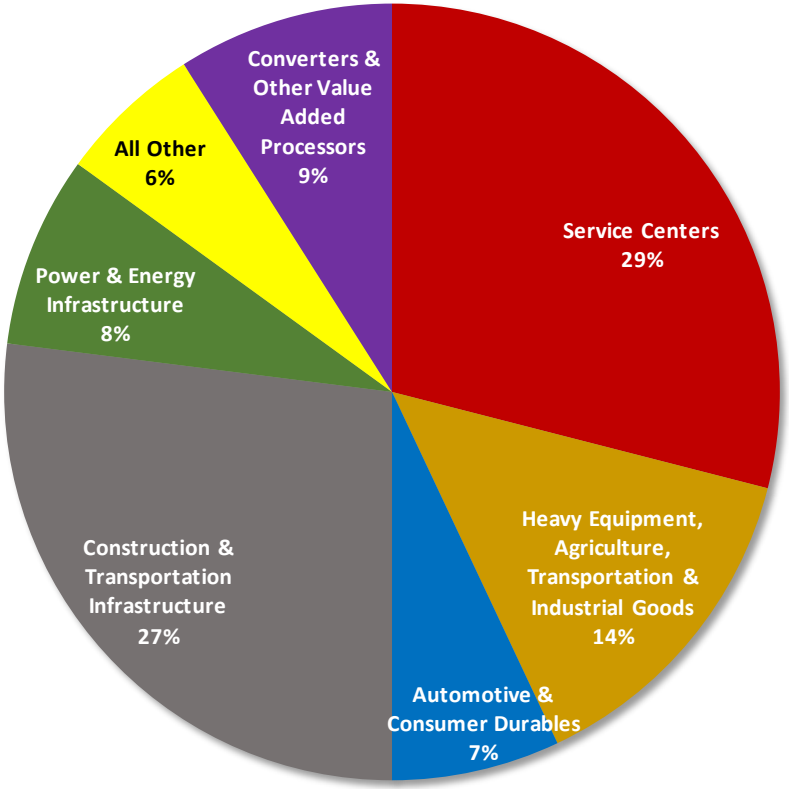
Diversified Product Mix

- Total Tons – 2015



Diversified Market Mix

- Shipments to Market Segments



THE MOST DIVERSIFIED

PRODUCER OF STEEL AND STEEL PRODUCTS IN NORTH AMERICA

	Nucor	Arcelor Mittal	Steel Dynamics	Gerdau	Commercial Metals Company	Republic	Timken	US Steel	AK Steel	SSAB
Highway Products	●				●					
Steel Framing	●									
Building Systems	●									
Joist & Decking	●		●							
Fasteners	●									
Grating	●				●					
Wire Products	●			●						
Rebar Fabrication	●				●					
Cold Finished Bar	●		●	●		●	●			
Plate	●	●								●
Sheet	●	●	●					●	●	
Structural / Piling	●	●	●	●						
SBQ	●	●	●	●		●	●			
Bar	●	●	●	●	●	●	●			

Market Leadership

#1

North American Market Leader

- Structural Steel
- Bar Steel
- Rebar Steel
- Hot Rolled Sheet Steel
- Cold Finished Bar Steel
- Steel Joist
- Steel Deck
- Steel Piling Distribution
- Metal Buildings
- Rebar Fabrication, Distribution, & Placement

#2

North American Market Leader

- Plate Steel

#3

North American Market Leader

- Sheet Steel (Hot, Cold, Galvanized)

OUR MISSION

NUCOR IS MADE UP OF

MORE THAN 20,000 TEAMMATES WHOSE GOAL IS TO

TAKE CARE OF OUR CUSTOMERS.

WE ARE ACCOMPLISHING THIS BY BEING

THE SAFEST,

HIGHEST QUALITY,

LOWEST COST,

MOST PRODUCTIVE

and

MOST PROFITABLE

STEEL AND STEEL PRODUCTS COMPANY IN THE WORLD.

WE ARE COMMITTED TO DOING THIS WHILE BEING CULTURAL AND ENVIRONMENTAL STEWARDS IN OUR COMMUNITIES WHERE WE LIVE AND WORK.

WE ARE SUCCEEDING BY WORKING TOGETHER.

TAKING CARE OF OUR CUSTOMERS MEANS ALL OF OUR CUSTOMERS: OUR EMPLOYEES, OUR SHAREHOLDERS AND THE PEOPLE WHO PURCHASE AND USE OUR PRODUCTS.

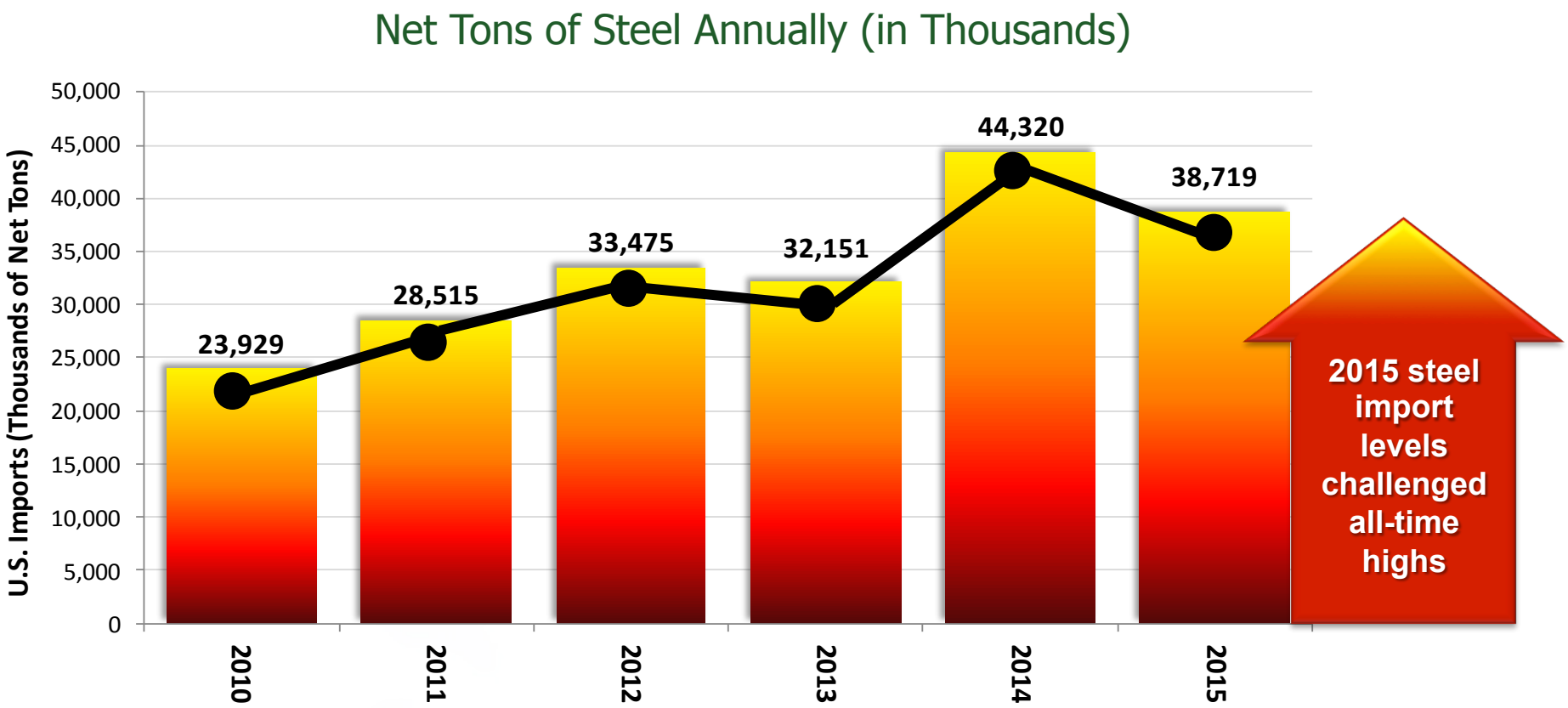
NUCOR

ECONOMIC CLIMATE AND THE STEEL BUSINESS

Disclaimer Statement

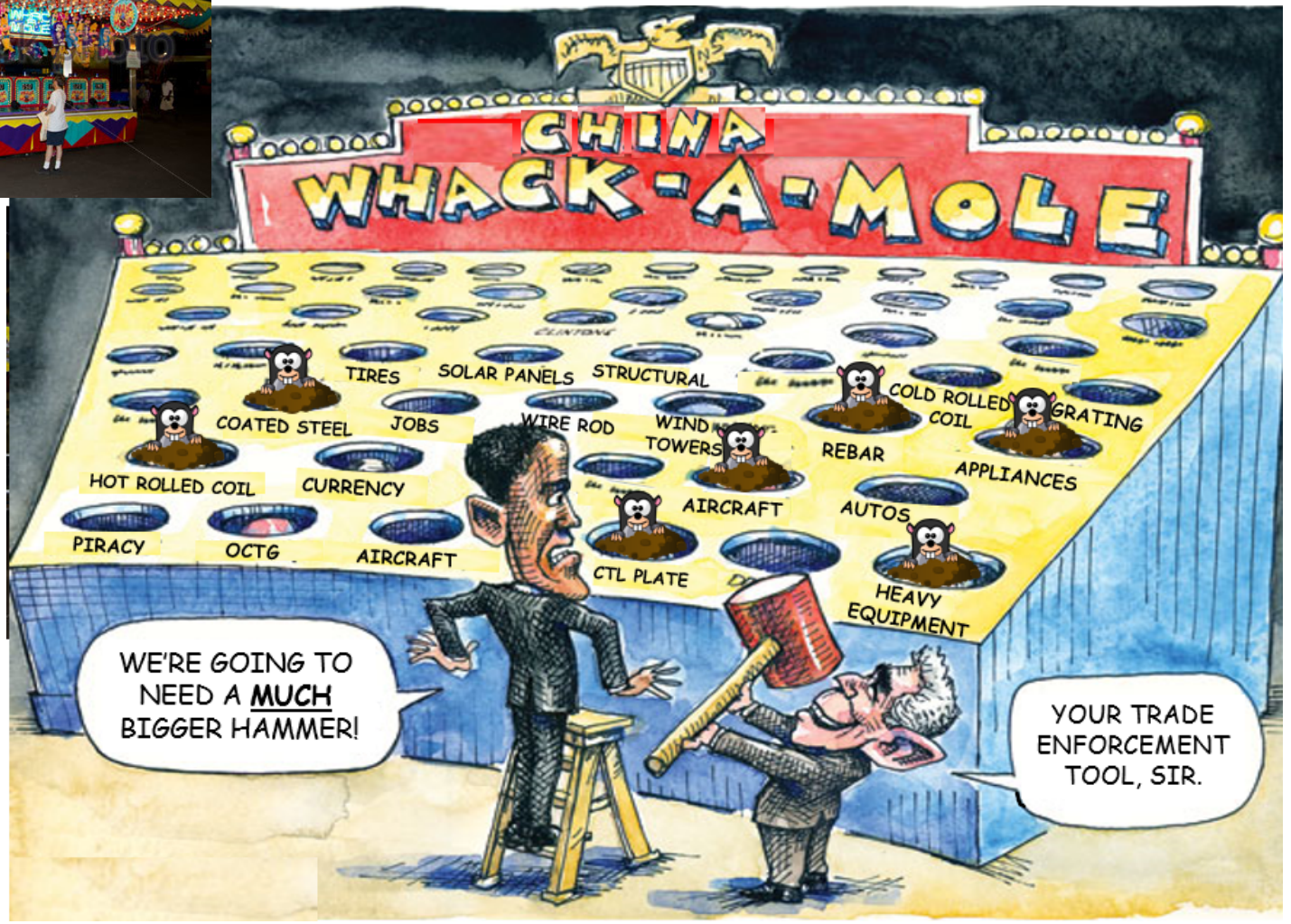
- The following opinions are those of Rob Roberson and should not be universally accepted as correct, nor should they be assumed to be the views of Nucor
- Viewer Discretion is advised

The Import Crisis



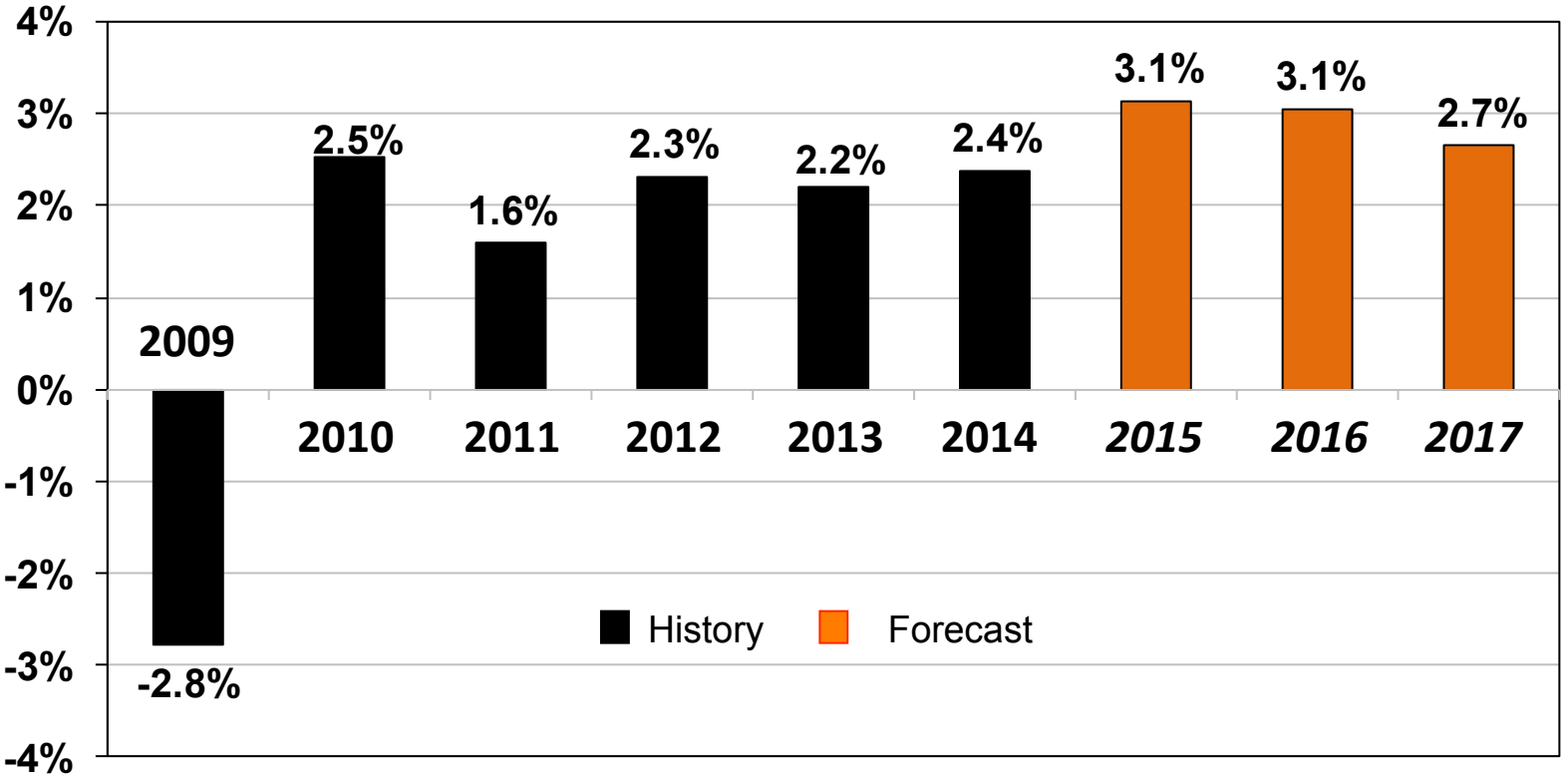
Source: U.S. Imports for Consumption of Steel Products, Foreign Trade Division, U.S. Census Bureau, most recent year annualized from current months

Playing Whack-a-Mole



U.S. Economic Forecast

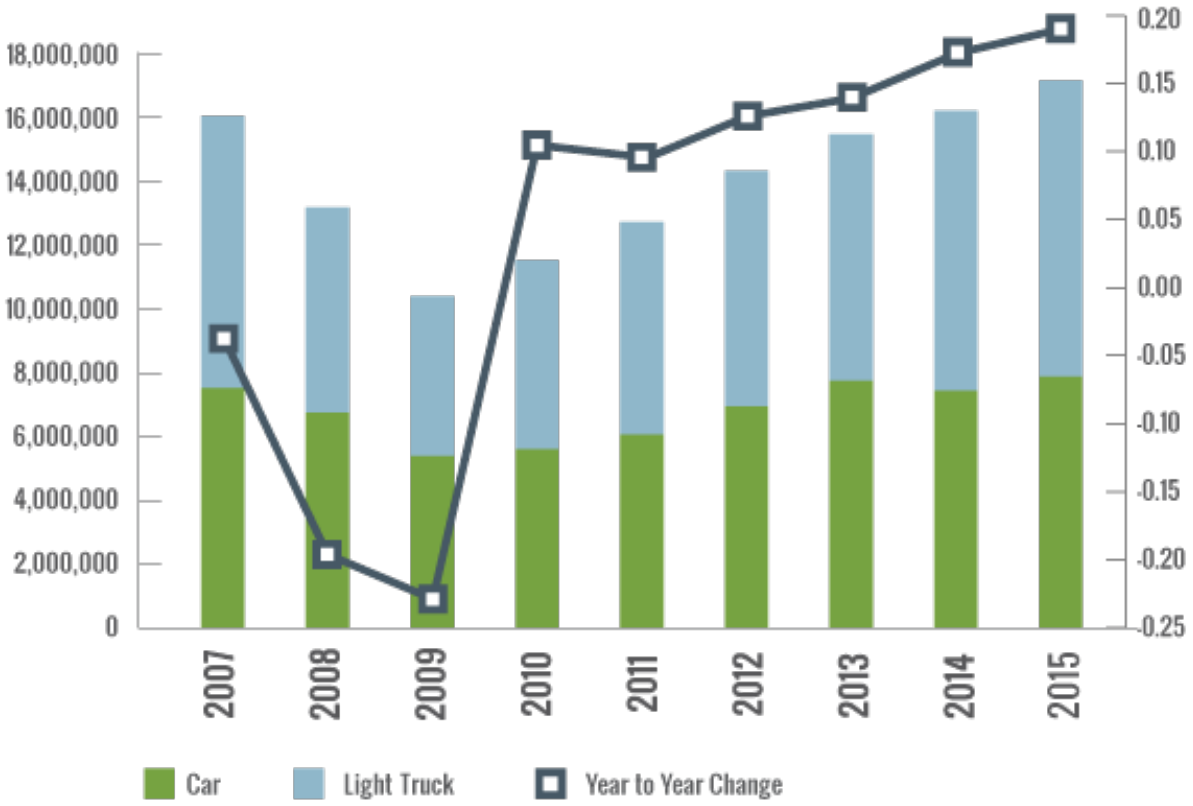
Percentage Change in U.S. Real GDP Growth



Source: IMF World Economic Outlook
Note: GDP constant price, annual percent change

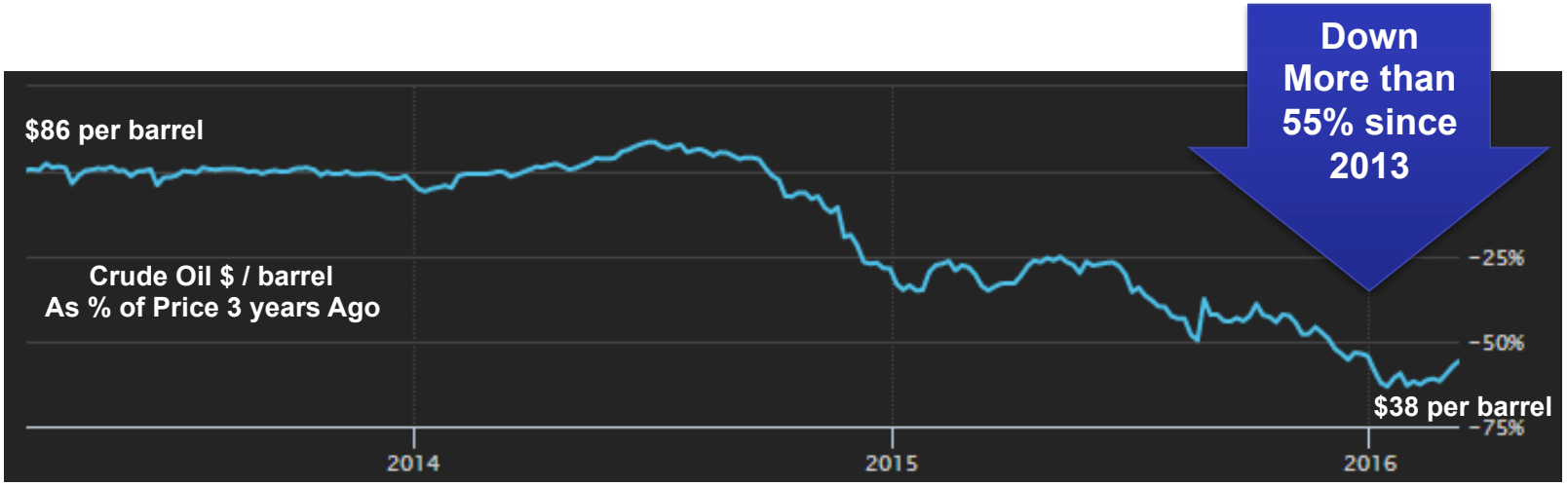
U.S. Light Vehicle Sales

Millions of Units Sold

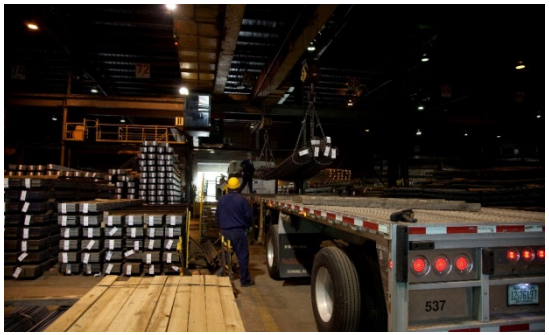


Sources: Auto Alliance, Wards Auto

Energy Sector



BEST PRACTICES IN SUPPLY CHAIN EXECUTION



Best Practices in Supply Chain Execution

- Leverage Collaboration with Transportation Partners
- Identify Metrics that Matter
- Embrace the Visibility Age
- Focus on Delivering Value

Leverage Collaboration

Conquering the Network Inefficiency also known as Demurrage...

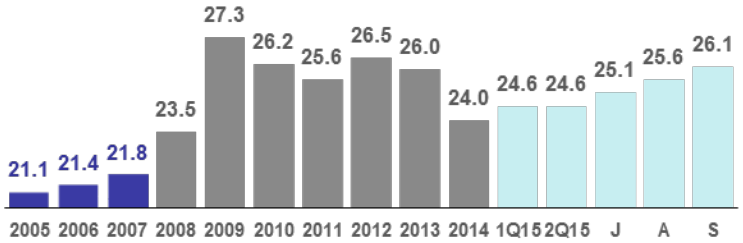
Leverage Collaboration

- Rail Carriers are an extension of us
- Team Approach to eliminating waste and taking cost out of the system
- Our goal is to take care of our customers

Identify Metrics That Matter

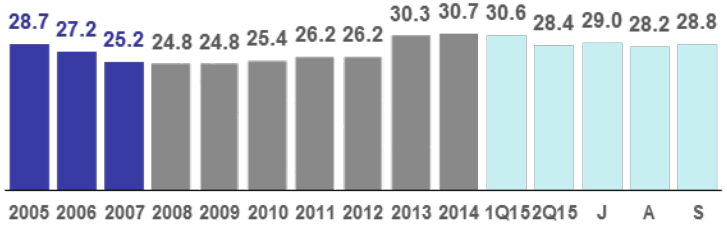
AAR Velocity

MPH



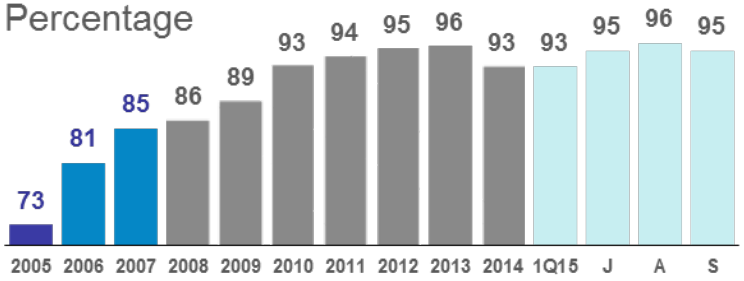
AAR Terminal Dwell

Hours



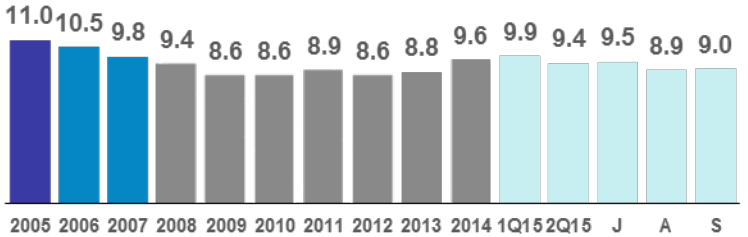
Industry Spot/Pull

Percentage



Freight Car Utilization

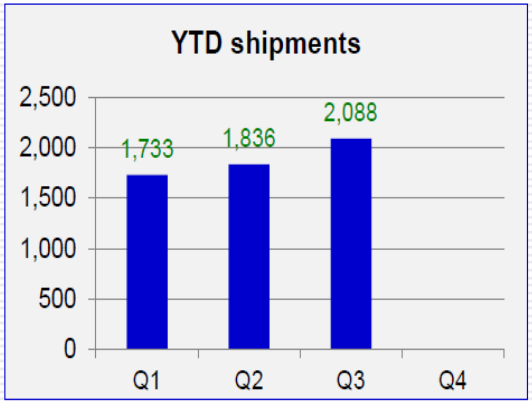
Cycle days



Identify Metrics That Matter

CAR ORDERS

Car Type	Ordered	Supplied	Fill percent
COVERED COIL GON	1970	1872	95%
DBL COV COIL GON	70	45	64%
TOPLESS COIL GON	10	10	100%
TOTALS	**2050**	**1927**	**94%**

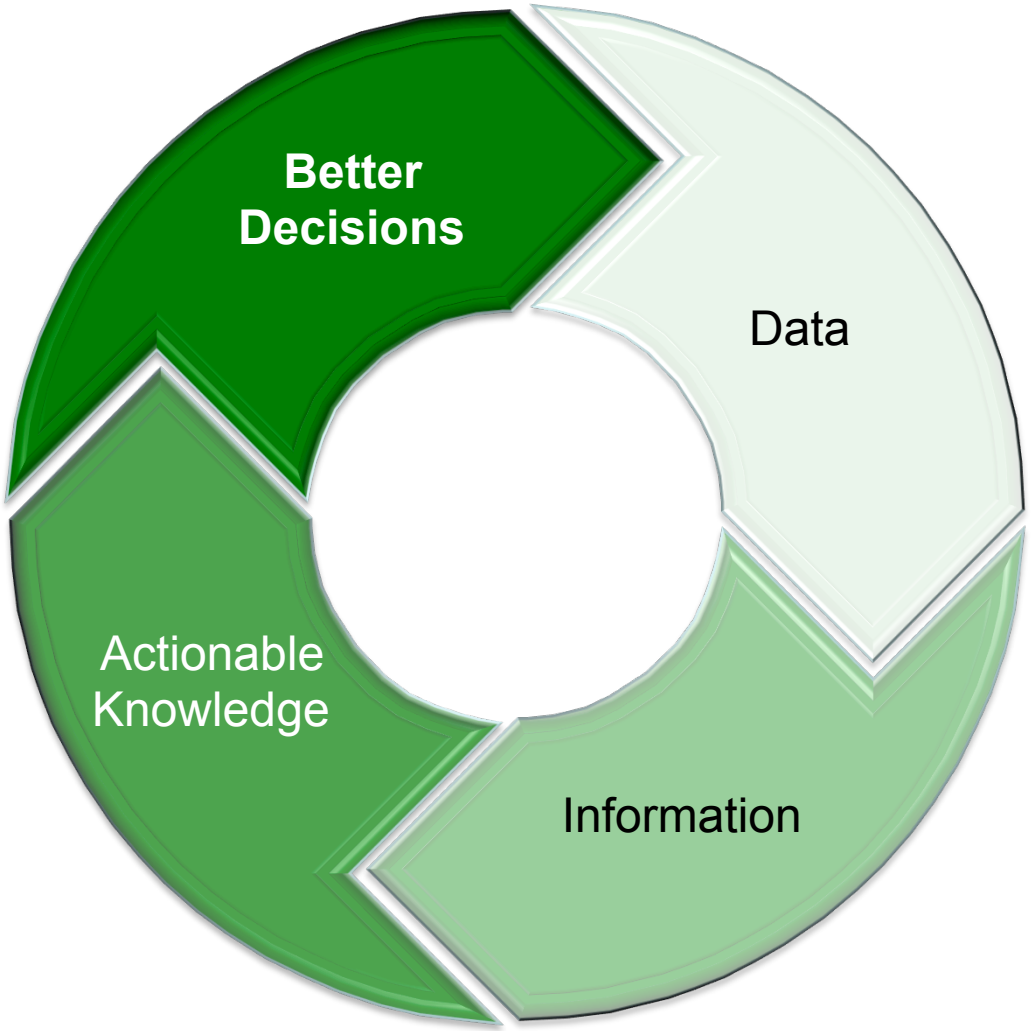


TOP 5 DESTINATIONS

| ----- On time shipments ------ |

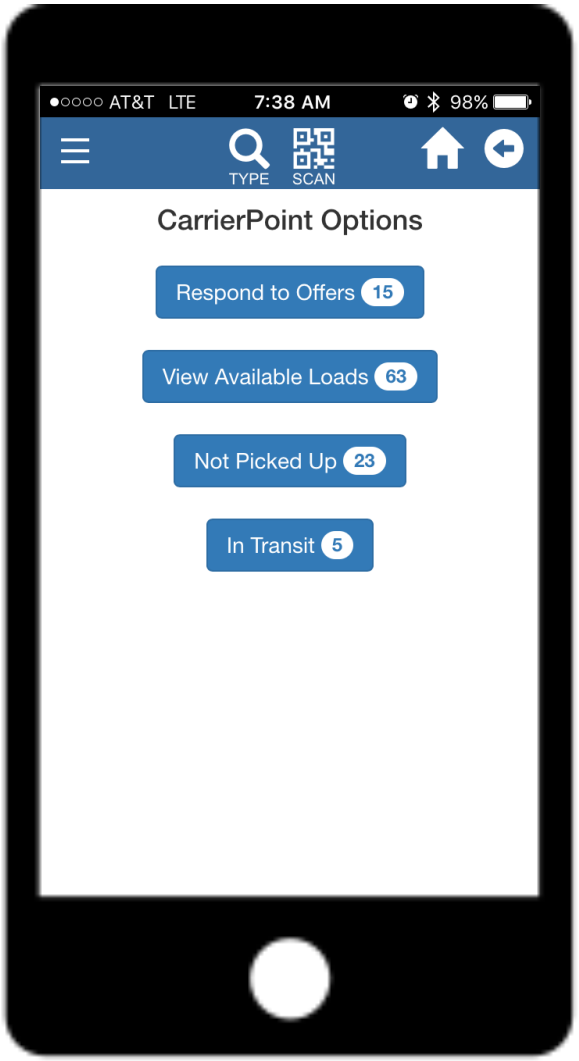
Destination City	ST	Customer	OFF RR/JCT	TOTAL Cars	MEAS Cars	ACT Transit	SCH Transit	Current QTR Cars	Current QTR Percent	Prior QTR	Prior QTR
CLEVEDALE	SC			295	292	6.7	6.5	251	86.0%	80.1%	50.2%
CAMDEN	NJ			134	115	10.4	8.7	88	76.5%	37.7%	5.6%
BALTIMORE	MD			153	153	9.1	6.4	78	51.0%	65.2%	28.2%
HAYS	PA			115	114	11.1	10.6	90	78.9%	89.0%	55.2%
TERRE HAUTE	IN			148	146	11.1	10.2	124	84.9%	93.3%	86.2%
TOP 5 DESTS				845	820	9.0	8.0	631	77.0%	71.0%	40.0%
ALL DESTS				2064	2001	9.7	8.4	1374	68.7%	61.4%	48.7%

The Cycle of Success

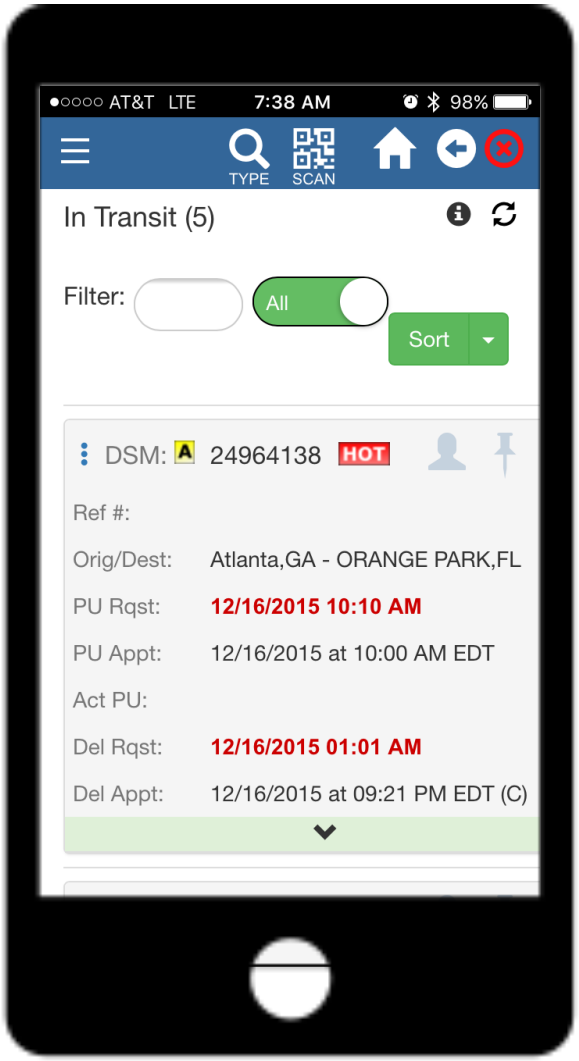


Embrace the Visibility Age

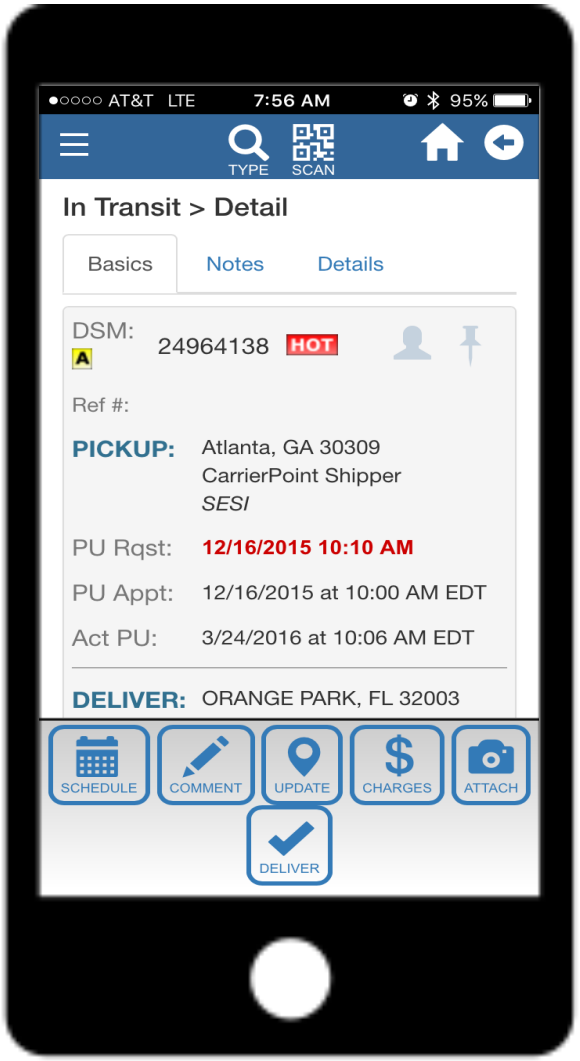
HOME PAGE



WORK WITH IN TRANSIT

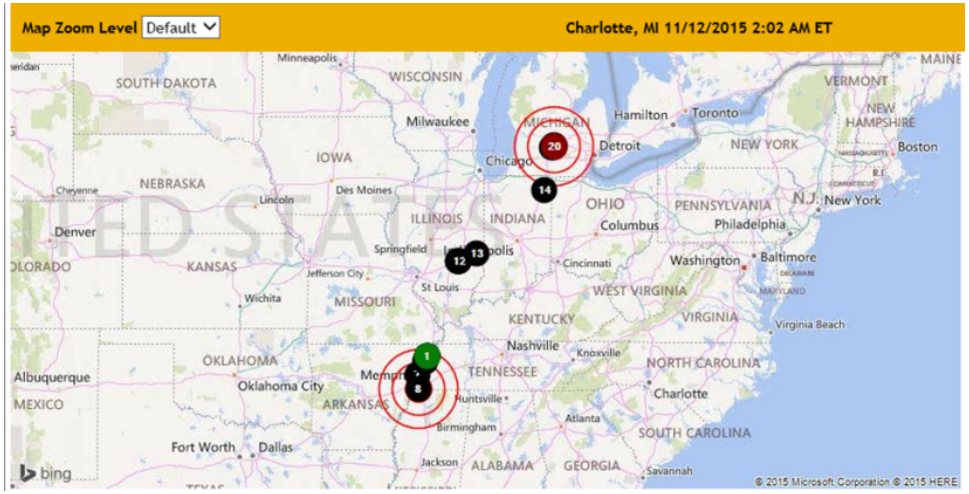


LOAD DETAIL



Embrace the Visibility Age

- Easy load tracking
  - Ease of setup
  - Breadcrumb Mapping
- TMS Updates
  - Direct communication to the TMS system
- Auto delivery in TMS
  - Geofencing (5 miles)



1 - Delivery
ALRO STEEL CORP

5859 ALRO PARK DRIVE
POTTERVILLE, MI 48876 US

TIME/APPOINTMENT INFO
11/11/2015 (Estimated)
Define Cust/Vendor Appointment

Del. Conf. Received
11/11/2015 01:44 PM EDT
Details

EDI Status Update	Arrived at Delivery Location: November 11, 2015 1:44 PM. Normal Status Location: POTTERVILLE, MI.
EDI Status Update	En Route to Delivery Location: November 11, 2015 12:44 PM. Normal Status Location: Charlotte, MI.
EDI Status Update	En Route to Delivery Location: November 11, 2015 11:01 AM. Normal Status Location: Laotto, IN.
EDI Status Update	En Route to Delivery Location: November 11, 2015 6:01 AM. Normal Status Location: Martinsville, IL.
EDI Status Update	En Route to Delivery Location: November 11, 2015 2:01 AM. Normal Status Location: Effingham, IL.
EDI Status Update	En Route to Delivery Location: November 10, 2015 10:00 PM. Normal Status Location: Effingham, IL.
EDI Status Update	En Route to Delivery Location: November 10, 2015 6:12 PM. Normal Status Location: Effingham, IL.
EDI Status Update	En Route to Delivery Location: November 10, 2015 2:02 PM. Normal Status Location: Blytheville, AR.

Focus on Delivering Value

- Ship Products, Deliver Value!

ORDER PLACED	TOTAL	SHIP TO	ORDER # 110-4995543-0521823
November 5, 2015	200 tons	Ryerson Procurement Corp	Order Details | Invoice

Expected Delivery: November 15, 2015 – November 21, 2015

On the way

Load	Tons	Mode	Shipped	Delivered
12334	95	Rail	11/16/15 05:37	11/16/15 06:02
12349	18	Truck	11/17/15 07:45	11/17/15 07:58
12335	87	Rail	11/18/15 11:15	*11/18/15 12:00 estimated*

Focus on Delivering Value

NUCOR

skylinesteel
a NUCOR company

HarrisSteelGroup

DJJ

TPP
Duferdofin NUCOR

Steel Technologies LLC

QUESTIONS?